

Your source for all engraving materials, supplies and fabrication services.



# Gravotech, the Expression of Things: a culture of excellence

Gravotech is the world's leading manufacturer of marking solutions. Born from the merger of the Gravograph and Technifor brands, we offer a full range of equipments and technologies: rotary, dot peen and scribing engraving machines, CO2, Fiber, Green and Hybrid lasers as well as a wide selection of engraving materials, consumables and services.

This success is built on three fundamentals:

- · A primary focus on our customers' needs,
- · Continually delivering state of the art solutions,
- Efficient customer service with over 720 employees worldwide. Gravotech team members are based in over 40 countries around the world, working to provide you with the best possible solutions for your marking, engraving and cutting needs as quickly as possible.

The Gravotech difference is founded on:

- · A complete solution approach: the Gravotech product offer lends itself to a full range of personalisation, signage and traceability applications,
- · A complete technology solution: machines, software, accessories and consumables,
- · A complete technical support solution: readily available in the field and by phone.

· A complete training solution: on-site training or on Gravotech premises, phone support from engraving experts.

The comprehensive Gravotech product line includes:

- The world's largest and most innovative range of CNC machines.
- · CO2, Fiber, Hybrid and Green laser marking systems,
- · Versatile dot-peen engraving systems,
- · Innovative software dedicated to the engraving industry, designed to optimize Gravotech machines,
- The most complete range of materials and engravables on the market,
- · Responsive in-house manufacturing services.

At Gravotech, we develop and market the world's most durable and highest quality marking solutions, while exceeding the engraving industry's standards for product and service performance.

Our quality management system ensures that our products and services are constantly improved and that all members of our team are committed to providing you with the best possible service.

Watch our video!



# **TABLE OF CONTENTS**

GRAVOTECH, THE EXPRESSION OF THING
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	Gravotech engraving materials	6-7
	Custom fabrication services	8
	Custom materials on demand	9
	Communication tools	10
	Our YouTube videos & playlists	11
	Selection guide (Laser & Rotary materials)	12-15
	Symbols	16
LASER MAT	ERIALS	17
DI ACTICC \	Gravoply <sup>TM</sup> Laser	18
PLASTICS >	Gravoply <sup>TM</sup> Ultra	19
	Gravoply <sup>TM</sup> 2	20
	Gravoglas™ 1	21
ACRYLICS >	Acrylic Clear / Fluorescent / Frosted / Opaque	22-25
	Ecocut Laser	26
FLEXIBLE	Rubbalase™	27
FOILS >	Flexilase™	28
	Stickalase™	29
METALLICS >	Gravolase™ Metallics	30
	Colored Aluminum	31
METALS >	Gravoxal™ Matte / Glossy	32-33
WILIALS /	AlumaMark®	34
	DuraBlack®	35
PHENOLICS >	Gravostrat™	36
ADA >	Gravotac™Exterior	37
WOOD >	Laser Wood	38
ROTARY MA	TERIALS	39
	Gravoply™ 1	40
	Gravoply™ 2	41
PLASTICS >	Gravoglas™ 2-Plex™ Surface Matte / Glossy / Textured	42-44
12/(3/163 /	Gravoply™ 3C	45
	Ecocut	46
	Gravoglas™ 2-Plex™ Subsurface Matte / Glossy	
ACRYLICS >	Acrylic Clear / Fluorescent / Frosted / Opaque	47
	Flexilase <sup>TM</sup>	48-51
FLEXIBLE FOILS >	Gravofoil™	52
	Metallex <sup>TM</sup>	53
METALLICS >		54
	Metallex <sup>TM</sup> Hard Coat	55
	Gravometall™ Glossy / Satin	56-57
METALS >	Gravobrass™ Exterior	58
	Colored Aluminum	59
	Gravoxal™ Matte / Glossy	60-61
PHENOLICS >	Gravostral™	62
	Gravostrat™	63
ADA >	Gravotac™	64

SIGNAGE		65
	Sign holders & base plates	66-67
	Our braille solution	68-69
ENGRAVIN	G SUPPLIES	71
	Colouring	72-75
	Cleaning	76
	Lubricating	77
	Fixing	78-79
	Mechanical fastenings	80-83
ENGRAVAE	BLES	85
	Create your own badge	86-87
	Door plates	88-89
	Medals	90-93
	Ornamental plates	94
	Key tags & ties	95
	Electrical identification	96-98
CUTTERS 8	R INSERTS	99
	Gravotech engraving cutters	100-101
TWINCUT	Conical, Cylindrical, Lips	102-105
ONECUT >	3.17 mm	106-107
	4.36 mm	108-110
	6.35 mm	111
	3.00 mm	112-113
PERCUT	4.00 mm	114-115
	6.00 mm	116-117
	Diamonds	118-119
	Accessories	120
	Twincut starter kit	121-122
MACHINE	ACCESSORIES	123
	Cylindrical attachment jigs	124-125
	Flat jigs	125-129
	Regulating noses	130-132
	Spindles	133-134
AUXILIARI	ES	135
	Chip collector	136
	Saws & guillotines	137-138
	Other accessories	139
MACHINES	& SOFTWARE	141
	Gravotech machine range	142-145
	Gravostyle™ software	146-147
	CO2 laser parameters	148-149

# Gravotech engraving materials

#### WHAT IS AN ENGRAVING MATERIAL?

Gravotech has been developing its own plastic materials for over 50 years. A material is an assembly of several layers of plastic of different colours.

The principle is the same for laser marking or rotary engraving: by removing a part of the upper layer, the lower layer is revealed and another colour appears for

3 layers, 3 colours

a constrasted engraving. A text, a drawing, a logotype, a pictogram can be drawn.

In order to meet all your applications, our offer is composed of materials made of different kind of assemblies.

3 layers, 2 colours on each side

1-PLY
For cutting, no engraving

Surface

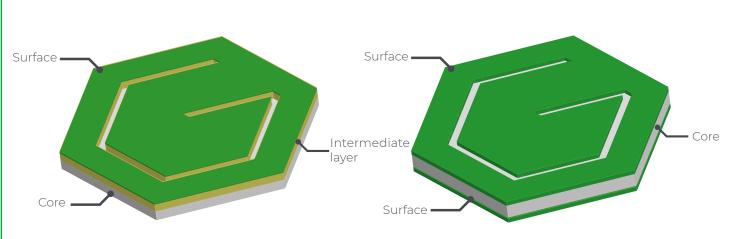
2-PLY
The most standard design

Surface

2 layers, 2 colours

3-PLY
An exception dedicated to safety signage

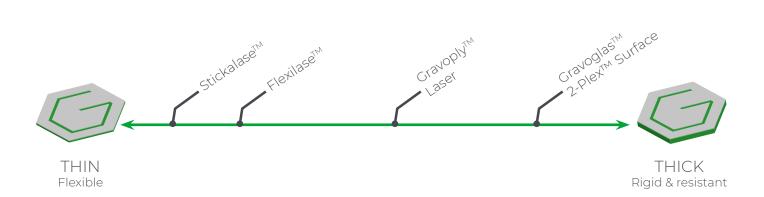
DOUBLE-SIDED
Can be engraved on both sides



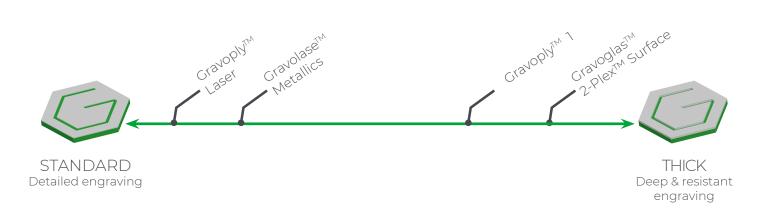
#### **CONSTRUCTION**

The lower layer is called the core and the upper layer the surface. By varying the thickness of the core and the surface, it is possible to achieve different engraving and cutting results to meet different requirements.

#### **CORE THICKNESS**



#### **SURFACE THICKNESS**



#### **CORE COMPOSITION**

The base composition of the core is selected to provide specific properties.

PMMA cores are the most popular: versatile, they ensure a great longevity and resistance to the environment (weathering, industrial conditions...).

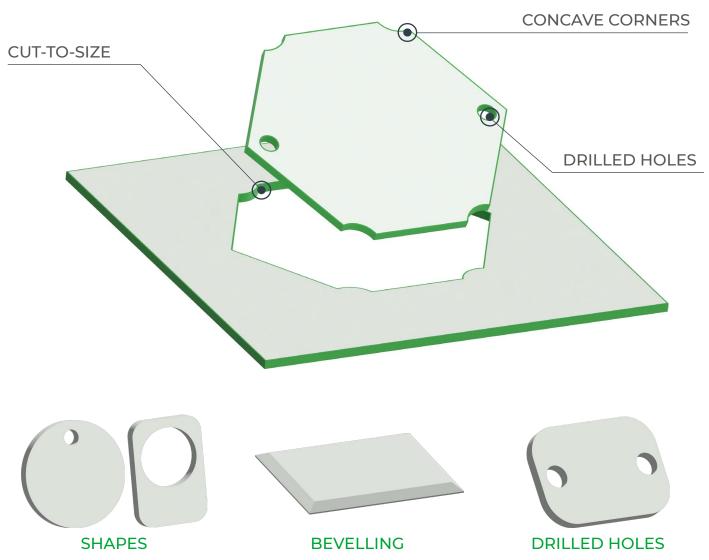
They can be used with laser and mechanical machines.

ABS cores are more economical and provide a certain flexibility of the material.

Dedicated to indoor use, they are usually rotary cut.

# Custom fabrication services

Save time and money by using our custom fabrication services that will meet your most demanding needs.



Custom fabricated shapes made to your specifications on demand.

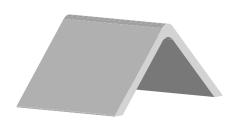
Bevelling is cutting a border with an angular edge to obtain a better finish. Our standard angle is 45°.

To accommodate your mounting needs in plastic and metal.



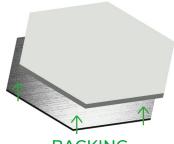
#### ROUNDED / CONCAVE CORNERS

We offer a wide selection of different radius for corners.



#### **BENDING**

Plastic materials can be bent into stand-up display signs, badges, etc. Maximum length of the bend is 500 mm (20").



**BACKING** 

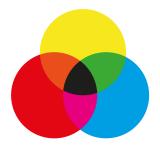
Adhesive: 467MP or 468MP available depending on the roughness of the substrate.

Magnetic: For temporary mounting of information tags on metal shelves, we can apply magnetic backing to the plates, strips and sheets.

# Custom materials on demand

Cannot find the plastic product you are looking for? Gravotech is able to supply material based on your specifications.

#### **COLOUR MIXING**



Gravotech provides any colours combination!

Mix any surface colour with any of our core colours. You can also provide us with a RAL or PANTONE® code to better match your needs.

#### **SPECIFIC THICKNESS**

Your application requires a specific material thickness?

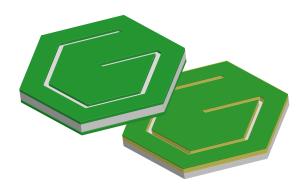
Let us know your requirements and we will produce a material adapted to your needs.

#### **SURFACE FINISH**



Choose from our 4 finishes, we can apply them to the majority of our plastic materials.

#### **DOUBLE-SIDED AND 3-PLY MATERIAL**



We can also produce double-sided material if your application requires it. Different colours on both sides possible.

Our Gravoply<sup>TM</sup> 3C range offers the most used colours. However we can produce up to 2,000 colour combinations on demand.

#### Quotation

For all these services, please ask your Gravotech partner for a quotation!

#### Lead-time

Fabrication times are only estimates, and may vary according to production load.

#### Return policy

All custom fabrication orders are non-returnable due to their custom nature. Please ensure that you provide accurate information when placing your fabrication order.

# Communication tools

Gravotech offers a multitude of marketing tools to help you select the right engraving material for your needs and promote your business.



#### **ENGRAVING SOURCE BOOK & E-CATALOG**

Your source for all engraving materials, supplies and fabrication

Engraving Source Book: Ref. 86586





#### **ENGRAVING MATERIALS POSTER**

Wall poster with overview of our whole range of materials.

Ref. 71938



#### **«SWATCHY» SAMPLES**

Physical samples of Gravotech's key materials.

Gravoply™ Laser: **Ref. 86494** Gravolase™ Metallics: Ref. 86497

Flexilase™: Ref. 86495 Acrylic: Ref. 86493 Laser Wood: Ref. 86496



#### **TECHNICAL & SAFETY DATA SHEETS**

Our materials have a technical datasheet and a safety datasheet. You can find these documents on a dedicated page on our website.



# Our YouTube videos & playlists

Discover our consumables videos on our YouTube channel.





#### GRAVOGLAS™ 1





#### GRAVOPLY™ ULTRA









GRAVOPLY™ LASER











**ACRYLIC** 

**CONSUMABLES** 

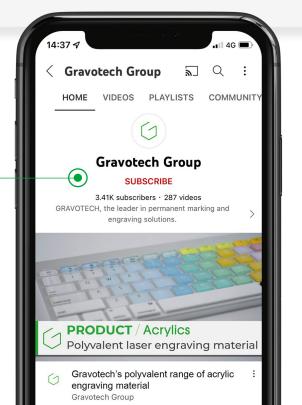


#### **OUR LATEST CONSUMABLES VIDEOS**

Find our product releases, our news and our latest tips about our engraving materials and other consumable products in video on YouTube by flashing this QR code.



Subscribe to our YouTube channel to see more!



SPECIFICATIONS

CAPABILITIES

# 12 G E X P 5 ENGRAVING SYSTEM

# LASER MATERIALS

GRAVOTECH		PLASTICS		ACRYLICS			FLEXIBLE				
SELECTION GUIDE		Gravoply™ Laser	Gravoply™ Ultra	Gravoply™ 2	Gravoglas™ 1	Acrylic	Ecocut Laser	Rubbalase™	Flexilase™		
)	CO2	2 laser engraving			-		-			-	
SYSTEM	CO2	laser cutting		•			-	-	-	-	
SYS	Rota	ary									
i	UV	Print	•	•	•	•	•	•		-	
	ing	Matte									
	Surface finishing	Brushed								-	
	e fir	Glossy									
S	rfac	Satin									
	Su	Textured									
SPECIFICATIONS		Acrylic						-			
		ABS			•						
Щ С	ion	Aluminium									
0,	Composition	Brass									
	d W	PVC									
	Ö	Phenolic									
		Rubber									
		Natural Plywood									
	Surf	face engraving					-			-	
	Sub	surface engraving									
	Inte	rior					-	-		-	
	Exte	erior									
	She	ar	< 1.3 mm	< 1.3 mm	< 2.4 mm			< 1.3 mm		-	
S	Sav	/									
CAPABILITIES	Silk	-screen			-		-	-			
	Hot	-stamping									
/A D/	Hea	t bending					-				
	Scra	atch resistant									
	Flex	rible						-		-	
	Brea	ak resistant									
	UV	resistant	-	•			-	-		-	
	Min	. temperature	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	
	Max	k. temperature	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (-176°F)	80°C (176°F)	
Pag	e		18	19	20	21	22-25	26	27	28	

F	OILS	METALLICS	METALS				PHENOLICS	ADA	WOOD
	Stickalase <sup>TM</sup>	Gravolase™ Metallics	Colored Aluminum	Gravoxаlтм	AlumaMark®	DuraBlack®	Gravostrat™	Gravotac™ Exterior	Laser Wood
		•			•		•		
	•			_			_		
					_		-		
					•				
	•							•	
					•				
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					•				
	•				•				
		_	_	•		•		•	
	•			•	•	•	_		•
			:	•		•	:		
	-		-		-		-		-
	-60°C (-76°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-200°C (-328°F)
	200°C (392°F)	80°C (176°F)	100°C (212°F)	200°C (392°F)	230°C (450°F)	370°C (700°F)	80°C (176°F)	80°C (-176°F)	100°C (212°F)
	29	30	31	32-33	34	35	36	37	38



GRAVOTECH					ACRYLICS					
SELECTION GUIDE		Gravoply™ 1	Gravoply™ 2	Gravoglas™ 2-Plex™ Surface	Gravoply™ 3C	Ecocut	Gravoglas™ 2-Plex™ Subsurface	Acrylic		
UZ _	CO	2 laser engraving								
ENGRAVING SYSTEM	CO	2 laser cutting							•	
JGR. SYS	Rot	ary			•			•		
Ш	UV	Print	•	•	•	•	•	•	•	
	ing	Matte								
	hish	Brushed								
	Surface finishing	Glossy								
S	rfac	Satin								
<u> </u>	Su	Textured			•					
SPECIFICATIONS		Acrylic			•					
Ē		ABS								
SPE(	ion	Aluminium								
0,	Composition	Brass								
	dmo	PVC								
	CC	Phenolic								
		Rubber								
		Natural Plywood								
	Sur	face engraving	•		•					
	Sub	osurface engraving						•		
	Inte	erior		•						
	Ext	erior								
	She	ear	< 2.4 mm	< 2.4 mm	< 1.3 mm	< 1.3 mm	< 2.4 mm	< 1.3 mm		
S	Sav	V								
CAPABILITIES	Silk	-screen								
√BII	Hot	-stamping								
ZAP,	Hea	at bending		•	•			•	•	
	Scr	atch resistant								
	Flex	xible	•	•						
	Bre	ak resistant								
	UV	resistant								
	Mir	. temperature	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	
	Max	x. temperature	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)	
Pag	ie		40	41	42-44	45	46	47	48-51	

ROTARY MATERIALS

FLEXIBLE I	FOILS	METALLICS	METALS				PHEN	PHENOLICS	
Flexilase™	Gravofoil™	Мetalleх™	Gravometall™	Gravobrass™ Exterior	Colored Aluminum	Gravoxа∣™	Gravostral™	Gravostrat™	Gravotac™
		-				-		•	
•									
•	•	•		•	•	•		•	
•	•	•	•	•		-	•	•	•
•	•	-		•		•	•		
•		-	_	_	_	_	•	_	
•		•		•		•		•	
			-		-				
•		•	•	•	•	-	•	-	
•				•		•			
		-		•	•	•			
				•	•				
		-		•	•		•	•	
	•	•							
		•							
					•	•	•	•	
•	•	-							•
_		•	•	•	•	-	•	•	•
-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)	-40°C (-40°F)				
80°C (176°F)	80°C (176°F)	80°C (176°F)	200°C (392°F)	370°C (700°F)	100°C (212°F)	200°C (392°F)	80°C (176°F)	80°C (176°F)	80°C (176°F)
52	53	54-55	56-57	58	59	60-61	62	63	64
32	55		55 57				02		0 1

# **Symbols**

To quickly identify and select the right material for your application, look out for the symbols indicating the main features of each Gravotech material range:

#### **TECHNOLOGY**



#### LASER ENGRAVING

This material can be engraved with a CO2 laser machine. In general, all our acrylic materials can be engraved and cut with a CO2 laser.



#### **ROTARY ENGRAVING**

This material can be engraved with a rotary machine. In general, all our materials made of ABS can be engraved and cut with a cutter.



#### **UV PRINTING**

This material supports UV printing on its surface.

#### **ENGRAVING SIDE**



#### SURFACE ENGRAVING

1-ply, 2-ply or 3-ply materials are either laser or rotary engraved to expose the core of the material, thereby giving a colour contrast between cap (surface layer) and core (base colour).



#### SUBSURFACE ENGRAVING

Applies to 1-ply and 2-ply clear base materials. The material is either laser or rotary engraved from the back. Once lasered or engraved, the characters and logos can be back-painted to achieve aesthetic colour contrast.

#### **USE**



#### **OUTDOOR USE**

This material has been designed to resist climatic variations and ultraviolet exposure. It is therefore suitable for outdoor use within the technical specifications given by Gravotech. The wide variety of applications does not allow us to define a shelf life for the product.



#### **INDOOR USE**

This material was designed for indoor use and does not require resistance to ultraviolet and climatic variations.





# ( \ LASER MATERIALS

# GRAVOPLY™ LASER

# Flexibility and performance for indoor and outdoor applications



videos!











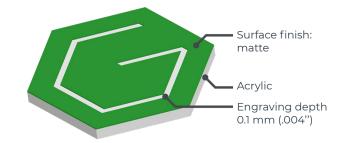
			Thickness	
Surface colour	Core colour	0.8 mm	1.3 mm	1.6 mm
		(1/32'')	(0.050'')	(1/16'')
white	red		51006	70005
white	blue		51011	
white	black	51017	49971	69991
yellow	red		51007	70006
yellow	blue		51012	
yellow	black	51018	49973	69992
orange	white	51035	51005	80767
orange	black	51020	51001	80768
red	white	51034	49988	69995
red	yellow		51009	
burgundy	white	51043	49997	70004
burgundy	gold		51016	
purple	white	67005	67006	80771
apple green	white	51042	49996	70003
pine green	white	51039	49995	70002
sky blue	white	51037	49990	69997
sky blue	black	51021	49979	69993
blue	white	51036	49989	69996
blue	yellow		51010	
air force blue	white	51038	49991	69998
brown	white	51044	49993	70000
grey	white	51046	49992	69999
grey	black	51023	49974	80774
black	white	51033	49987	69994
black	yellow		51008	
black	gold		51014	

- · The most versatile plastic material: indoor and outdoor, laser and rotary engraving and cutting.
- · Microthin surface layer for detailed engraving.
- · Cost effective: one product, one stock, many applications.

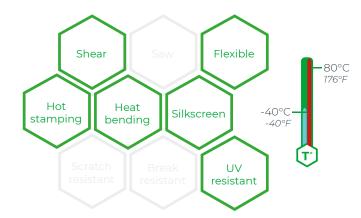
#### **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24''	24 x 24"	24 x 12"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Outdoor signage



Small labels and plates



Industrial signage



Architectural signage



# GRAVOPLY™ ULTRA

#### Effectiveness, productivity, precision and durability



videos!

Surface		Thick	ness
colour	Core colour	0.5 mm (0.020")	1.6 mm (1/16'')
white	black	18946	18984
yellow	black	18955	18993
orange	white		19000
orange	black		29499
red	white	18949	18987
red	black		29498
burgundy	white		18980
apple green	white	18970	19012
forest green	white		19001
pine green	white		29491
sky blue	white		70953
blue	white	18952	18990
air force blue	white		29492
navy blue	white		29494
royal blue	white		19015
brown	white		29495
chocolate brown	white		29493
light grey	black		29496
taupe	white		29501
black	white	18943	18981
black	gold	18976	
glossy black	gold	18973	

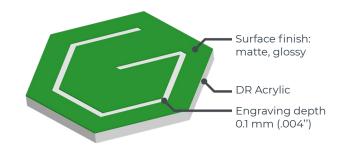
Black/gold Ref. 18973 has a glossy finish.

- · The most durable plastic material for exterior applications.
- · Ideal for industrial applications: identification, electrical, signage, safety.
- · Custom colours available on demand to match your graphic charter, logo...

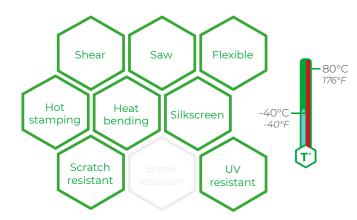
#### **AVAILABLE SHEET SIZES**

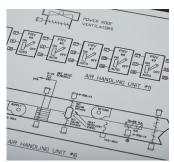
1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Industrial synoptic



Information label



Outdoor signage



Small plate

# GRAVOPLY™ 2

#### The affordable material for small plates and labels











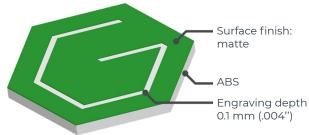


- · Best value for money: good quality with a reduced budget.
- · Microthin surface layer. Perfect for small characters and detailed logos.
- · Wide choice of colours, ideal for your badges, ID plates & indoor signage engraving.

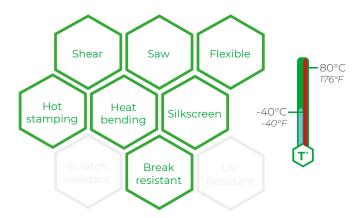
#### AVAILABLE SHEET SIZES

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES

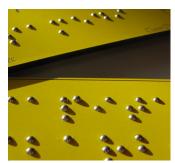


#### \* References in green are double-sided

#### Note:

The surface layer of Gravoply $^{\text{TM}}$  2 can be lasered but the engraving quality may vary depending on the colour.

You can mix any surface and core colours on demand. Double-sided also available.



Braille signage



Indoor signage



Small labels and plates



Badges

# GRAVOGLAS™ 1

#### The outdoor acrylic material for upscale architectural signage



videos!

Surface colour	Core colour	Thickness		
		1.5 mm (1/16'')	3.0 mm (1/8")	5.0 mm (0.20'')
white	clear	18141	18193	18264
red	clear		18201	18267
blue	clear		18207	18270
silver		18171	18244	18293
gold	clear	18168	18235	18290
old gold	clear	18174	18252	18296
black	clear	18138	18183	18261

Note:

Gravoglas<sup>™</sup> 1 is also used for the identification of pipes in the industrial sector.

- · Laser engraving and cutting. Subsurface engraving: produce multi-colour signage with paint fill.
- · Particularly popular for the brilliance of its black, gold and silver colours.
- · Excellent UV resistance. Easy to keep the surface clean. Resistant to chemical agents.

#### **AVAILABLE SHEET SIZES**

1220 x 610	mm



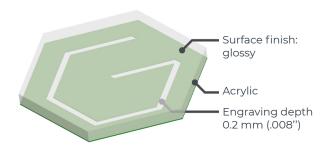


48 x 24"

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

#### MATERIAL SPECIFICITIES



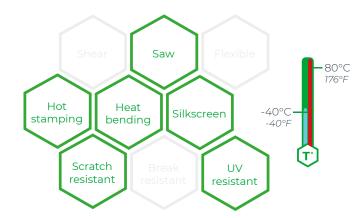
#### **COMPLEMENTARY PRODUCTS**

See page 82



Spacers

#### MATERIAL CAPABILITIES





Visual communication





Professional plates



Measure tools

# **ACRYLIC - CLEAR**

#### Let your creativity flow!





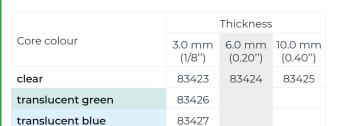












- · Cast acrylic. A resistant material, both for indoor and outdoor use. Rotary and laser engraving and cutting. Perfect for UV printing.
- · Glossy finish. White engraving. Clear Acrylic can also be used as a substrate.
- · A real alternative to glass, lighter and more resistant. Perfect light transmission, easily associated with light/LED.

#### **AVAILABLE SHEET SIZES**

1220 x 610 r	nm



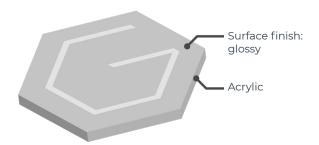


48 x 24"

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

#### MATERIAL SPECIFICITIES



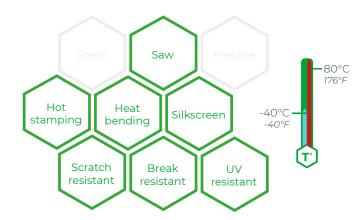
#### **COMPLEMENTARY PRODUCTS**

See page 82



Spacers

#### MATERIAL CAPABILITIES





Gift and decoration



Promotional items



Light and illumination



Trophy and awards



# **ACRYLIC - FLUORESCENT**

#### Let your creativity flow!



videos!

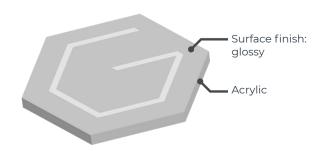
	Thickness
Core colour	3.0 mm (1/8'')
fluorescent yellow	83428
fluorescent orange	83430
fluorescent pink	83429

- · Discover the cast version of acrylic for a modern yet resistant finish.
- · One-ply translucent material. Vivid and bright colours. Glossy finish.
- · Can also be used as a substrate. For even more creative possibilities, combine it with the other Acrylic materials.

#### **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mn
48 x 24"	24 x 24"	24 x 12''

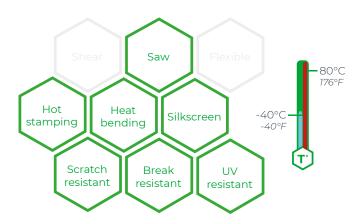
#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**

See page 82 See page 80 See page 81 Ball chains Nickel-plated Spacers

#### MATERIAL CAPABILITIES



#### **APPLICATIONS**





steel ring

Promotional items



Gifts



Display

# **ACRYLIC - FROSTED**

#### Let your creativity flow!



videos!













	Thickness
Core colour	3.0 mm (1/8'')
frosted white	83431
frosted light blue	83434
frosted sky blue	83438
frosted blue ocean	83435
frosted blue lagoon	83437
frosted green	83436
frosted yellow	83432
frosted pink	83439
frosted mauve	83433

- · Double-sided material: one side matte, one side glossy. Matte side relatively insensitive to fingerprints and scratches.
- · Laser CO2 and mechanical engraving and cutting on both the front and the back. Can also be used as a substrate.
- · Perfect for all your design and creative realisations.

#### **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 6

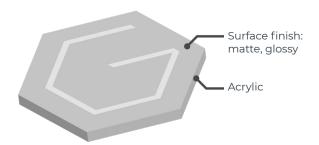


--- x 610 48 x 24"

0 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**

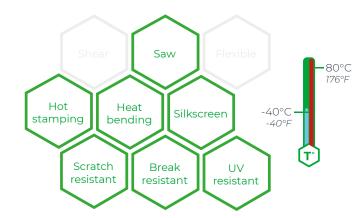
See page 82 See page 82





Screws

#### MATERIAL CAPABILITIES





Decoration



Gifts and promotional items



Decoration



Creative signage



# **ACRYLIC - OPAQUE**

#### Let your creativity flow!



	Thickness	
Core colour	3.0 mm (1/8")	6.0 mm (0.20'')
opaque white	83440	83441
opaque black	83442	83443

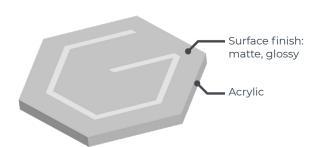
For even more colours and possibilities, combine Acrylic with Gravotac<sup>™</sup> Exterior.

- · Double-sided material: one side matte, one side glossy.
- · Laser CO2 and mechanical engraving and cutting on both the front and the back. Can also be used as a substrate.
- · Fine white contrast with CO2 laser on opaque black. Opaque white perfect for UV printing.

#### **AVAILABLE SHEET SIZES**

1220 x 610 m	m 610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

#### MATERIAL SPECIFICITIES



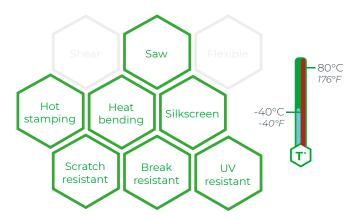
#### **COMPLEMENTARY PRODUCTS**

See page 78



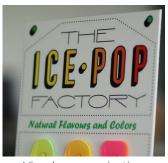
Double-sided 19 mm

#### MATERIAL CAPABILITIES





Decoration



Visual communication





Indoor and outdoor signage

# **ECOCUT LASER**

# A very affordable material for laser cutting work

**Thickness** 

1.3 mm

(0.050'')

85987

86477

1.6 mm

(1/16")

85988

86478

0.8 mm

(1/32")

85986

86476













white

black

Core colour

The surface of the Ecocut Laser is rough. It may include scratches and imperfections. Use only for cutting applications where the surface state does not matter.

0.5 mm

(0.020'')

85985

85989

- · Very affordable substrate that can be UVprinted.
- · Make stencils for letters, numbers, logos and
- · 4 thicknesses for any cutting work.

#### **AVAILABLE SHEET SIZES**





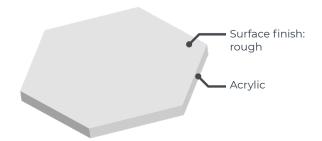


48 x 24"

610 x 610 mm 24 x 24"

24 x 12"

#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**



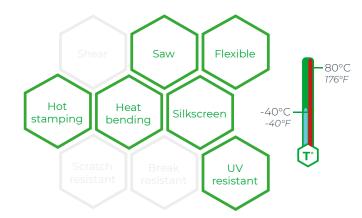






Adhesive mounting tape

#### MATERIAL CAPABILITIES





Cutting shapes



Cutting-out template



Industrial stencil



Paint filling

# **RUBBALASETM**

#### The laserable material made of natural rubber

	Thickness
Core colour	2.2 mm (0.087'')
natural rubbalase	19897
odourless rubbalase	48542

Note:

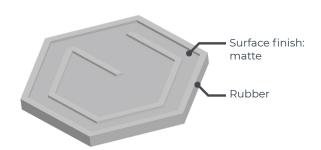
The hardness of elastomers is measured on the scale «Shore A»; Rubbalase is measured at 60 «Shore A».

- · Exclusively for lasering with CO2 laser engraving machines to create inking stamps.
- · Its thickness of 2.2 mm (0.087") and its hardness (60 Shore) ensure a high definition result.
- · Texts, numbers, logos, detailled pictures... from the most conventional to the most creative stamp.

#### **AVAILABLE SHEET SIZES**



#### MATERIAL SPECIFICITIES



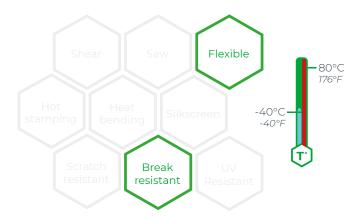
#### **COMPLEMENTARY PRODUCTS**

See page 79



Gravogrip™

#### MATERIAL CAPABILITIES





Any professional stamps



Administration and shops



Any legal dept. needs



Stationnary and DIY

# **FLEXILASETM**

# The flexible material for high-definition engraving













		Thickness
Surface	Core colour	
colour		0.25 mm (0.010'')
		,
white	black	66984
yellow	black	66985
orange	black	66986
red	white	66997
purple	white	67002
apple green	white	67001
pine green	white	71673
sky blue	white	67000
blue	white	71670
air force blue	white	71671
brown	white	67004
brushed aluminum	black	66991
glossy silver	black	66990
matt aluminum	black	67558
european gold	black	66989
glossy gold	black	66988
grey	white	67003
black	white	66995

Purple, pine green and grey surfaces are subject to premature colourfading.

You can mix any surface and core colours on demand.

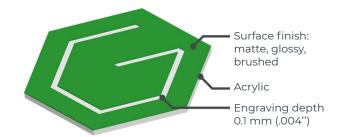
- · Very thin and flexible, excellent for indoor and outdoor labels on flat or curved surfaces.
- · Surface layer of just a few microns for fine laser CO2 engraving and cutting.
- · Delivered with adhesive backing. Metallic colours for cups and trophies to be personalised.

#### **AVAILABLE SHEET SIZES**

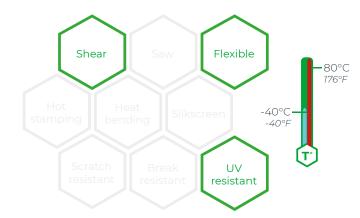


24 x 12"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Industrial labels



Labels for personalization



Trophy plates



Labels for curved surfaces



# **STICKALASETM**

#### The ultimate ultra fine laserable material

Surface colour	Core colour	Thickness 0.09 mm (0.004")
silver	black	19872
black	white	19871

Note:

For a larger choice of colours, see Flexilase<sup>TM</sup>.

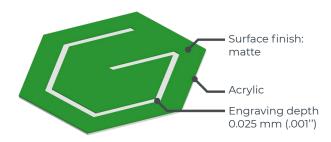
- · Our thinnest material: surface layer of 0.09 mm (0.004") for fine engraving and clean cut when using a CO2 laser.
- · Very good material for small labels on curved surface.
- · Delivered in 10 metres (32') roll, with adhesive backing.

#### **AVAILABLE SHEET SIZES**

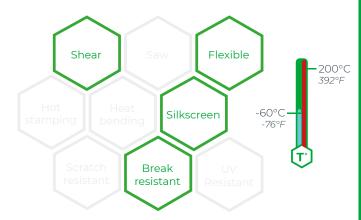


4.75" x 32"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Small labels to stick



Inventory labels





# GRAVOLASE™ METALLICS

#### Laser material for a high-end metallic finish











Note:

For a thinner laser metallic aspect material, see Flexilase<sup>TM</sup>. Other thicknesses available on demand.

- The CO2 laser engraving and cutting plastic with a metallic aspect, cheaper than metal.
- · 0.025 mm (0.001") surface layer for detailed engraving.
- · Large range of metallic colours in a glossy, brushed or matte finish.

#### AVAILABLE SHEET SIZES

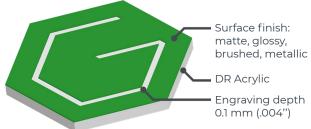
1220 x 610 mm	610 x 610
48 x 24"	24 x 24''



 $0 \, \text{mm}$ 24 x 24'

610 x 305 mm 24 x 12"

#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**



Double-sided 50mm





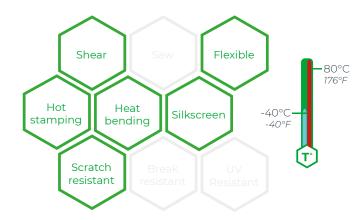
Gravofix



See page 87

Coloured badges plastic frames

#### MATERIAL CAPABILITIES



#### **APPLICATIONS**



Trophy plates



Award plates



Badges

Indoor signage

# CASER MATERIALS

# **COLORED ALUMINUM**

# The coloured aluminium for a striking contrast

Surface colour		Thickness	
	Core colour	0.6 mm (0.025'')	
red	silver	34528	
blue	silver	34497	
satin gold		34595	
glossy gold	silver	34596	
satin silver	silver	34625	
glossy silver	silver	34626	
black	silver	34455	

- · Ideal metal for labels, small plates and indoor signage.
- · Great for creativity: astonishing contrast after rotary or fibre laser engraving. Also sublimable.
- · Thin aluminium: easy to cut and shear.

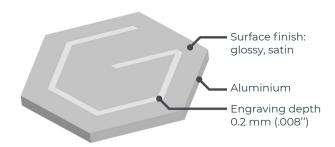
#### **AVAILABLE SHEET SIZES**

1220	x 30	15 1	mm
/, Q v 1	2"		



610 x 305 mm 24 x 12"

#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**

See page 78



Double-sided 19 mm

#### MATERIAL CAPABILITIES





Directional signage



Name plate



Informative signage



# GRAVOXALTM - MATTE

#### The multipurpose anodised aluminium range













Conform		Thickness				
Surface colour	Core colour		1.0 mm (0.040'')		2.0 mm (1/12")	3.0 mm (1/8")
champagne	aluminum		18581			
red	aluminum		18577	18591		
green	aluminum		18583	18597		
blue	aluminum		18579	18593		
silver		18385	22055	18386	22057	22059
gold	aluminum	18571	18575	18589	18603	
bronze	aluminum		18585	18599		
black	aluminum	18569	18573	18587	18601	18614

Note:

Protective film on one side.

Due to the process, there can be stains in the corners of aluminium sheets.

Laser engraving on all colours except silver. The engraving contrast may vary according to the colour.

Size 2000 x 1000 mm (78 x 39") on request.

Gravoxal™ Matte silver also available in 4 mm (1/6"): Ref. 18388.

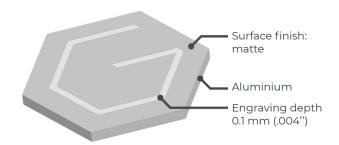
- · Strong anodisation for a durable protection of the material.
- · Ideal for the manufacture of front panels, the engraving of nameplates and industrial signage.
- · High-definition laser engraving to be carried out even at greyscales.

#### **AVAILABLE SHEET SIZES**

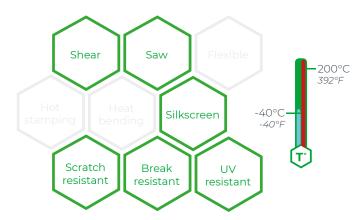


1000 x 500 mm 39 x 19"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES



#### **APPLICATIONS**



Control panels





**Pictures** 

Small plates



# GRAVOXAL™ - GLOSSY

#### The multipurpose anodised aluminium range

Surface		Thickness		
colour	Core colour	1.0 mm (0.040'')	1.5 mm (1/16'')	2.0 mm (1/12'')
champagne	aluminum	18640		
red	aluminum	18636	18658	
green	aluminum	18642	18664	
blue	aluminum	18638	18660	
silver		18618	18646	18668
steel look		30381	30382	30383
gold	aluminum	18630	18654	18674
black	aluminum	18624	18650	18671

Note:

Protective film on one side.

Due to the process, there can be stains in the corners of aluminium sheets.

Laser engraving on all colours except silver. The engraving contrast may vary according to the colour.

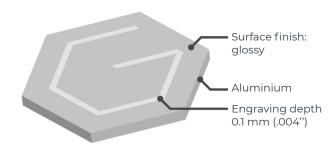
Size 2000 x 1000 mm (78 x 39") on request.

- · Strong anodisation for a durable protection of the material.
- · Ideal for the manufacture of front faces, the engraving of nameplates and industrial signage.
- · High-definition laser engraving to be carried out even at greyscales.

#### **AVAILABLE SHEET SIZES**

1000 x 500 mm 39 x 19"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Lounge/Bar 🛶 Restaurant Control panel Indoor signage

Lift/Stairs





Exterior signage



# **ALUMAMARK®**

# Black marking on aluminum with CO2 engraving





Power sensitive material.

If the image is too dark, reduce the power. If the image is too light, increase the power.

Engraving quality is improved using 50% speed.

Laser power: 6 - 10 watts.

Full sheets size depending on colours and thicknesses. Different sizes for:

- Ref. 27414: 305 x 254 mm (12 x 10")
- Ref. 45878: 510 x 305 mm (20 x 12")
- Ref. 45879: 610 x 510 mm (24 x 20")
- \* Delivered with adhesive backing.

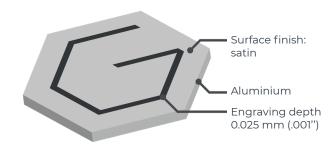
- Natural black marking thanks to a thermal reaction with the heat of any CO2 laser.
- · No oxidation, chemical product or paint fill needed to get the contrast.
- Fine details and shades of grey, ideal for photos.

#### **AVAILABLE SHEET SIZES**

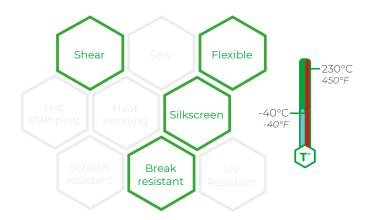


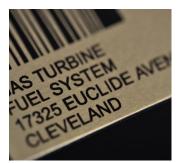
610 x 508 mm 24 x 20"

#### MATERIAL SPECIFICITIES



#### MATERIAL CAPABILITIES





Small plates and labels



Picture reproductions



ID plates



Bar codes



# **DURABLACK®**

#### Anodised aluminium for harsh environments

Surface colour	Core colour	Thickness	
		*0.5 mm (0.020")	
black	silver	71922	

#### Note:

Meets several government, industrial and military standards including MIL-STD 130N, A-A-50271 (MIL-P-514D), MIL-STD-15024F, Type L, MIL-STD-810G for withstanding 96 hours of exposure to corosive chemicals, ASTM B117 30 days exposure to salt fog.

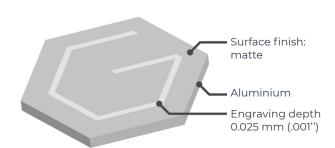
\* Delivered with adhesive backing.

- · CO2 laser markable aluminium for durable marking for harsh operating environments.
- · Ideal metal for durable, high-resolution barcode, pictures, placards, stock tags and signage.
- · Resistant to UV, abrasion, high temperatures, salt spray and chemical exposure.

#### **AVAILABLE SHEET SIZES**



#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**

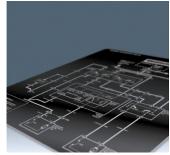
#### See page 79



Gravogrip™

#### MATERIAL CAPABILITIES





Industrial synoptic



Pictures reproductions



Outdoor signage



Asset tags



# **GRAVOSTRATTM**

#### An economical material for demanding applications











#### \* References in green are double-sided

#### Note:

Gravostrat<sup>™</sup> can be laser engraved but not laser cut. Gravostrat™ may be subject to slight variations in thickness.

- · Double-sided rigid phenolic material with a glossy finish.
- · Ideal choice for all industrial identification needs.
- · Resistant to chemicals and solvents, nonflammable, conforms to military specifications ASTM D 709 ES-1, ES-2, ES-3, electrically nonconductive.

#### AVAILABLE SHEET SIZES





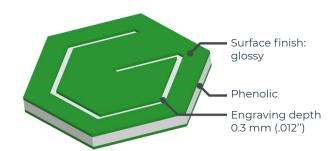


48 x 24"

605 x 600 mm 24 x 24"

600 x 300 mm 24 x 12"

#### MATERIAL SPECIFICITIES



#### **COMPLEMENTARY PRODUCTS**

See page 80 See page 81

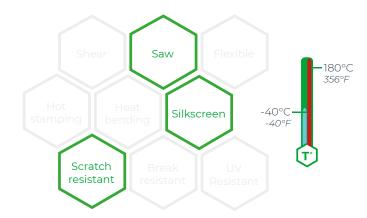




Ball chains

Nickel-plated steel ring

#### MATERIAL CAPABILITIES



#### **APPLICATIONS**





Safety sign





Push button

Industrial identification



# GRAVOTAC™ EXTERIOR

# The outdoor laserable braille material



videos!

Core colour	Thickness			
	0.8 mm (1/32'')	1.6 mm (1/16'')	3.2 mm (1/8'')	
clear	29918	29935		
white	29919	29936	31237	
red		29939		
pine green	29927			
blue		29945		
silver grey		29946	32187	
black	29920	29937	31257	

- · The necessary product for braille and tactile signs cut with your laser machine.
- · Profile available without or with adhesive backing.
- · Matte finish. Compliant with the Americans with Disabilities Act (ADA) and Disability Discrimination Act (DDA) legislations which states that all information must be accessible to people with disabilities.

# **AVAILABLE SHEET SIZES**





610 x 305 mm

24 x 12"

# THE GRAVOTAC™ PROCESS



- 1°) Adhere 0.8 mm (1/32") profile material to 1.6 mm (1/16") or 3.2 mm (1/8") substrate.
- 2°) Engrave using outline font.
- 3°) Peel excess profile material off substrate.

For better visibility, choose contrasted colours.

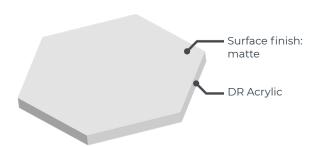
**COMPLEMENTARY PRODUCTS** 

### See page 76

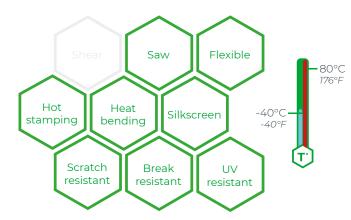


Gravoclean

# MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES





Icons and pictograms



Braille and tactile signage



Outdoor signage



Tactile signage

# LASER WOOD

# Think Green. Go Green.

















		Thick	mess	
Core colour			2.5 mm	4.5 mm (11/64") *
bîrch	82741	82742	82743	82744
beech			82747	82748
oak			82745	82746
walnut			82749	82750

\* References in green are double-sided

Note: Packaged by 5.

Wood is a natural organic material. Thickness, colour and aspect can vary from one sheet to another.

Let the material acclimatise to the end-use conditions before using it.

Apply the masking paper on the sheet to avoid dust and fumes during CO2 laser cutting. Maintain the sheet flat on the honeycomb table using clamps.

# STARTER KIT - REF. 83925



Starter kit contains: Refs. 82741, 84742, 82747, 82749, 82746

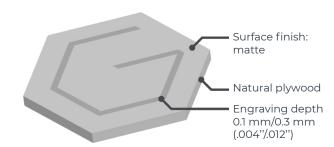
- · Safe composition, respect of both nature and people.
- · From thin and flexible 0.4 mm (1/64") to thick and rigid wood 4.5 mm (11/64").
- $\cdot$  0.4 mm (1/64") as thin as paper, for flexible applications.
- · Mix with other materials like Acrylic and aluminum for modern and trendy creations!

### **AVAILABLE SHEET SIZES**

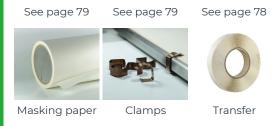


610 x 305 mm 24 x 12"

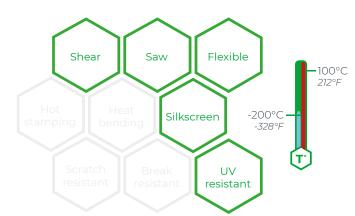
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES





Decoration and gifts



Architectural models



Interior signage



Personalized cards and DIY





# ROTARY **MATERIALS**



# GRAVOPLY™ 1

# Our universal & historical material









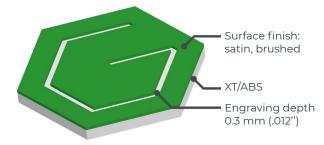


- · The acrylic surface and its smooth satin finish makes Gravoply™ 1 particularly scratch resistant.
- · The right rotary product for every industrial or architectural identification indoor applications.
- · Most popular colour combinations also available in double-sided version.

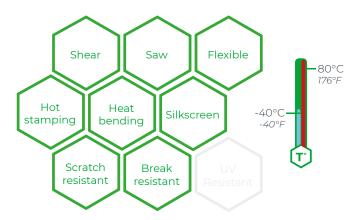
### **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

# MATERIAL SPECIFICITIES

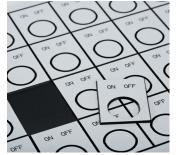


# MATERIAL CAPABILITIES





Key tags



Industrial signage Push buttons



<sup>\*</sup> References in green are double-sided

# GRAVOPLY™ 2

# The affordable material for small plates and labels

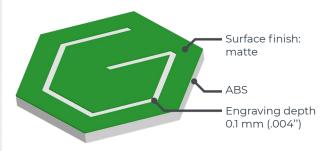
6 (			Thick	kness	
Surface colour	Core colour	0.8 mm (1/32'')	1.5 mm (1/16'')	1.5 mm (1/16") *	2.4 mm (3/32")
white	red		21928		
white	azure blue		21908		
white	black	21850	21919	22010	21982
yellow	red		21913		
yellow	black	21863	21936		21995
orange	white		52205		
red	white	21851	21921		21983
red	yellow		21910		
burgundy	white		21932		
purple	white		67007		
apple green	white	21838	21905		
pine green	white	21865	21938		21997
pine green	yellow		21916		
sky blue	white		21934		
sky blue	black		21895		
blue	white	21852	21923		21984
air force blue	white		21907		
brown	white		21930		
grey	white	21856	21927		
grey	black		21915		
black	white	21849	21917	22009	21981
black	yellow		21940		

- · Best value for money: good quality with a reduced budget.
- · Microthin surface layer. Perfect for small characters and detailed logos.
- · Wide choice of colours, ideal for your badges, ID plates & indoor signage engraving.

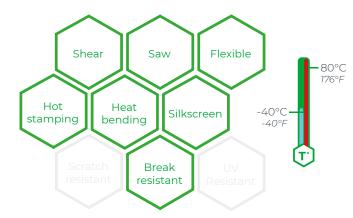
# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12''

# MATERIAL SPECIFICITIES



## MATERIAL CAPABILITIES

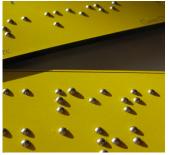


# \* References in green are double-sided

# Note:

The surface layer of Gravoply™ 2 can be lasered but the engraving quality may vary depending on the colour.

You can mix any surface and core colours on demand. Double-sided also available.



Braille signage



Indoor signage



Small labels and plates



Badges



# GRAVOGLAS™ 2-PLEX™ - MATTE SURFACE

# A strong acrylic material for outdoor use











Cf.			Thickness	
Surface colour		1.6 mm (1/16'')	3.2 mm (1/8'')	3.2 mm (1/8") *
white	red	29627		
white	blue	29628		
white	black	17875	29904	29912
yellow	black	17881		
orange	black	29633		
orange	white	47230		
red	white	17877	29905	
apple green	white	17885	29906	
azure blue	white	17879	29907	
silver grey	black	17887	29908	
gold	black	29642	29910	
black	white	17873	29911	29913
black	gold	29643		

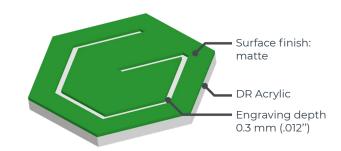
\* References in green are double-sided

- · Matte aspect. Ideal for outdoor signage and directional signs.
- · High resistance to UV and scratches thanks to its thick surface.
- · Recommended for deeply engraved signage.

# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24''	24 x 24''	24 x 12"

### MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



### **APPLICATIONS**

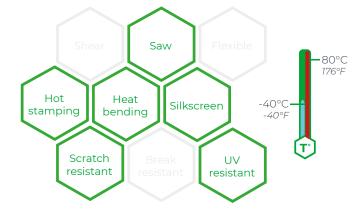


Legend plate



Industrial signage

# MATERIAL CAPABILITIES





Directional signage



Information plate



# GRAVOGLAS™ 2-PLEX™ - GLOSSY SURFACE

# A strong acrylic material for outdoor use

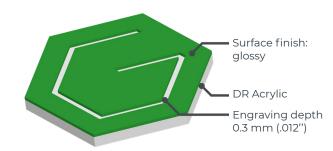
Courfee		Thickness	
Surface colour	Core colour	1.6 mm (1/16'')	3.2 mm (1/8'')
white	red	17907	18063
white	black	17892	18051
yellow	black	17901	18060
red	white	17895	18054
apple green	white	17910	18066
pine green	white	17918	
azure blue	white	17898	18057
silver grey	black	17930	18078
gold	black	17927	18075
black	white	17889	18048

- · Glossy aspect. Ideal for outdoor signage and directional signs.
- · High resistance to UV and scratches thanks to its thick surface.
- · Recommended for deeply engraved signage.

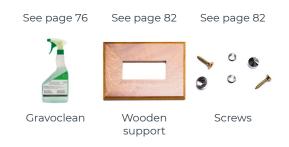
# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24''	24 x 12"

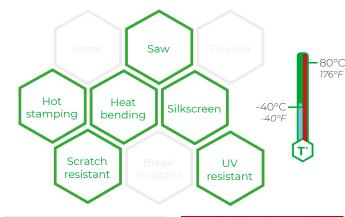
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



## MATERIAL CAPABILITIES





Professional plate



Outdoor signage



Location identification



Information label



# ROTARY MATERIALS

# GRAVOGLAS™ 2-PLEX™ - TEXTURED SURFACE

# A strong acrylic material for outdoor use





















- · Textured aspect. Ideal for outdoor signage and industrial applications.
- · High resistance to UV, scratches and fingerprints thanks to its thick and textured surface.
- · Recommended for deeply engraved signage.

# **AVAILABLE SHEET SIZES**

1220	x 610	mn



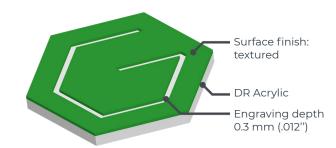


48 x 24''

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**





See page 80





See page 81

S-Hook rings

# MATERIAL CAPABILITIES



### **APPLICATIONS**







Indoor and outdoor signage

**BETRIEB AUS** 

Security sign

Electrical identification



# N ROTARY MATERIALS

# GRAVOPLY™ 3C

# The only comprehensive range offering 3 levels of colour

Courte	Second		Thickness
Surface colour	surface colour	Core colour	1.6 mm (1/16'')
white	red	black	23957
yellow		black	23949
yellow	red	black	23954
red	white	black	23955
apple green	white	black	23953
blue	white	black	23956
blue	red	white	23952
brushed aluminum	black	white	23951
radiant gold	black	white	23950
black	red	white	23948

Note:

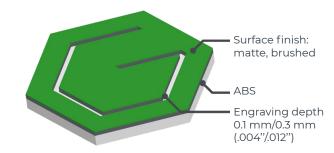
Other colour combinations available on demand.

- · Get a 3 colours sign without adding any colouring afterwards.
- $\cdot$  Use just one tool to obtain 3 different colours simply by changing the engraving depth.
- · Ideal for plates with logos, safety signs and badges.

# **AVAILABLE SHEET SIZES**

1220 x 600 mm	610 x 600 mm	600 x 305 mm
48 x 24"	24 x 24"	24 x 12''

### MATERIAL SPECIFICITIES



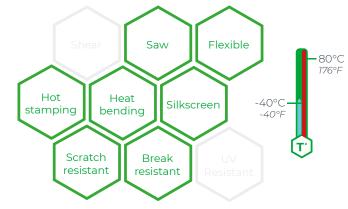
# **COMPLEMENTARY PRODUCTS**



Gravoclean



# MATERIAL CAPABILITIES











Logos and pictures

**Pictograms** 



# **ECOCUT**

# A very affordable material for rotary cutting work









### Note:

The surface of the Ecocut is rough. It may include scratches and imperfections. Use only for cutting applications where the surface state does not matter.

For CO2 laser cutting, we suggest the use of Ecocut Laser.

- · Specific low-priced plastic for cutting applications.
- · Make stencils for letters, numbers, logos and
- · Create positioning templates to hold parts or place cut-out letters.

# **AVAILABLE SHEET SIZES**



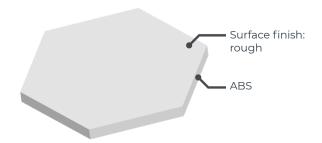


1220 x 610 mm 48 x 24"

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



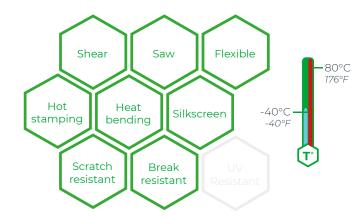






Adhesive mounting tape

# MATERIAL CAPABILITIES





Cutting-out template



Paint filling



Stencil for safety



Cutting shapes



# GRAVOGLAS™ 2-PLEX™ **SUBSURFACE**

The reverse outdoor acrylic material

# **MATTE**

Conform		Thickness	
Surface colour	Core colour	1.6 mm (1/16'')	3.2 mm (1/8'')
clear	clear	17941	18082
white	clear	17947	18086
yellow	clear	17956	
red	clear	17950	
azure blue	clear	17953	
silver grey	clear	17961	34406
black	clear	17944	18084

- Engrave the back, so the front always protects the engraving.
- · After mechanical reverse engraving, can be paint filled.
- · Resists to fingerprints, scratches and UV.

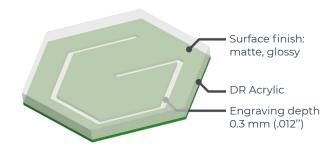
# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mr
48 x 24"	24 x 24"	24 x 12''

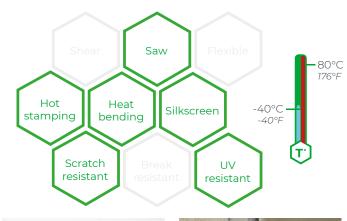
# **GLOSSY**

Surface		Thickness		
colour	Core colour	1.6 mm (1/16'')	3.2 mm (1/8")	18101
white	clear		18021	18101
yellow	clear	18003		
red	clear	17997		
silver grey	clear	29656		
gold	clear	17982	18091	
black	clear	17991	18024	18104

# MATERIAL SPECIFICITIES



## MATERIAL CAPABILITIES



# COMPLEMENTARY PRODUCTS





Outdoor signage



Small pieces



Letter cut out



Gift and decoration

# **ACRYLIC - CLEAR**

# Let your creativity flow!

















- **Thickness** Core colour 6.0 mm 10.0 mm 3.0 mm (1/8") (0.20")(0.40")83423 83425 clear 83424 translucent green 83426 translucent blue 83427
- · Cast acrylic. A resistant material, both for indoor and outdoor use. Rotary and laser engraving and cutting. Perfect for UV printing.
- · Glossy finish. White engraving. Clear Acrylic can also be used as a substrate.
- · A real alternative to glass, lighter and more resistant. Perfect light transmission, easily associated with light/LED.

# **AVAILABLE SHEET SIZES**

1220 x 610	mm



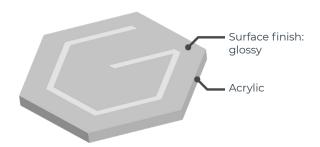


48 x 24"

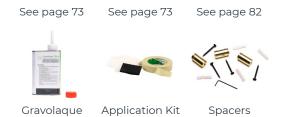
610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

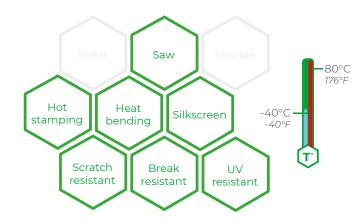
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES





Gift and decoration



Promotional items



Light and illumination



Trophy and awards



# **ACRYLIC - FLUORESCENT**

# Let your creativity flow!



Watch	our
video	s!

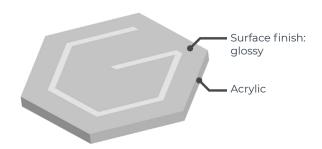
	Thickness
Core colour	3.0 mm (1/8'')
fluorescent yellow	83428
fluorescent orange	83430
fluorescent pink	83429

- · Discover the cast version of acrylic for a modern yet resistant finish.
- · 1-ply translucent material. Vivid and bright colours. Glossy finish.
- · Can also be used as a substrate. For even more creative possibilities, combine it with the other Acrylic materials.

# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**

See page 82 See page 80 See page 81



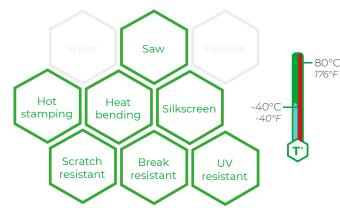
Spacers





Nickel-plated steel ring

## MATERIAL CAPABILITIES











Display

# **ACRYLIC - FROSTED**

# Let your creativity flow!







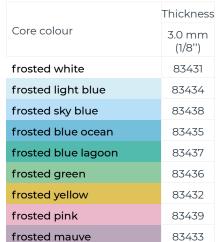












- · Double-sided material: one side matte, one side glossy. Matte side relatively insensitive to fingerprints and scratches.
- · Laser CO2 and mechanical engraving and cutting on both the front and the back. Can also be used as a substrate.
- · Perfect for all your design and creative realizations.

# **AVAILABLE SHEET SIZES**

1220 x 610 mm	(



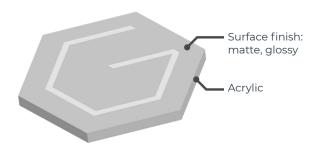


48 x 24"

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

# MATERIAL SPECIFICITIES



## **COMPLEMENTARY PRODUCTS**

See page 82 See page 82

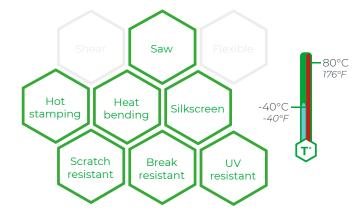


# **APPLICATIONS**



Gifts and promotional items

# MATERIAL CAPABILITIES







Decoration

Creative signage



# **ACRYLIC - OPAQUE**

# Let your creativity flow!



Watch our	
videos!	

Core colour	Thickness		
	3.0 mm (1/8")	6.0 mm (0.20")	
opaque white	83440	83441	
opaque black	83442	83443	

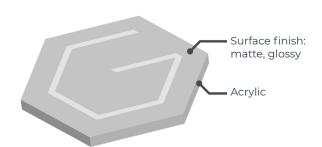
For even more colours and possibilities, combine Acrylic with Gravotac<sup>™</sup> Exterior.

- · Double-sided material: one side matte, one side glossy.
- · Laser CO2 and mechanical engraving and cutting on both the front and the back. Can also be used as a substrate.
- · Fine white contrast with CO2 laser on opaque black. Opaque white perfect for UV printing.

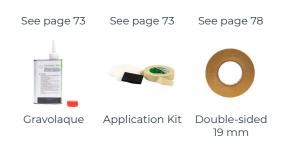
# **AVAILABLE SHEET SIZES**

1220 x 610 m	610 x 610 m	610 x 305 mn
48 x 24"	24 x 24"	24 x 12"

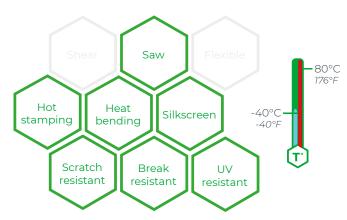
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**

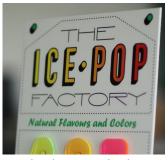


## MATERIAL CAPABILITIES





Decoration



Visual communication





Indoor and outdoor signage

# **FLEXILASETM**

# The flexible material for high-definition engraving













Surface		Thickness
colour	Core colour	0.25 mm (0.010'')
white	black	66984
yellow	black	66985
orange	black	66986
red	white	66997
purple	white	67002
apple green	white	67001
pine green	white	71673
sky blue	white	67000
blue	white	71670
air force blue	white	71671
brown	white	67004
brushed aluminum	black	66991
glossy silver	black	66990
matt aluminum	black	67558
european gold	black	66989
glossy gold	black	66988
grey	white	67003
black	white	66995

Purple, pine green and grey surfaces are subject to premature colourfading.

You can mix any surface and core colours on demand.

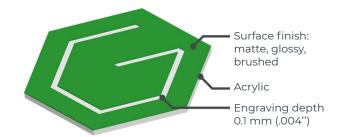
- · Very thin and flexible, excellent for indoor and outdoor labels on flat or curved surfaces.
- · Surface layer of just a few microns for fine laser CO2 engraving and cutting.
- · Delivered with adhesive backing. Metallic colours for cups and trophies to be personalised.

### **AVAILABLE SHEET SIZES**



24 x 12"

### MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES





Industrial labels



Labels for personalization



Trophy plates



Labels for curved surfaces



# **GRAVOFOILTM**

# The reference for thin material dedicated to industrial signage

Surface		Thickness	
colour	Core colour	0.2 mm (0.008'')	
white	black	18448	
yellow	black	18456	
red	white	18450	
green	white	18460	
blue	white	18452	
grey	white	18454	
black	white	18446	

Note:

For CO2 laser engraving, we suggest the use of Flexilase<sup>TM</sup>.

- · Follows the pipe identification colours for the industrial market.
- · Excellent resistance to acids and solvents.
- · Very flexible. Comes with adhesive backing, can be easily placed on curved surfaces.

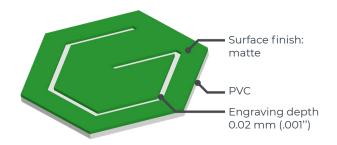
# **AVAILABLE SHEET SIZES**

660	Х	480	O I	mr

480 x 330 mm 18 x 12.5"

# 25 x 18"

# MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES





Pipes and valves identification



Permanent labels



Pipes identification



Industrial labels



# **METALLEX**<sup>TM</sup>

# Metallic appearance for a high-end finish











Cf		Thickness		
Surface colour	Core colour	0.8 mm (1/32'')	1.5 mm (1/16'')	2.4 mm (3/32'')
radiant silver	black	21825	21889	21957
matt aluminum	black	21867	21941	21999
brushed aluminum	black	21830	21898	21965
glossy silver	black	21823	21887	21955
new gold	black	21846	21914	21978
radiant gold	black	21824	21888	21956
european gold	black	21836	21903	21969
glossy gold	black	21822	21886	
brushed bronze	black		21904	

### Note:

The surface layer of the Metallex™ can be lasered but the quality of the engraving may vary depending on the colours. Laser cutting is not recommended.

On demand pre-cut tags available, ideal for machines or to enhance productivity.

With it smooth and supergloss finish, the Hard Coat version of Metallex<sup>™</sup> has a surface layer that is even more resistant to scratches and fingerprints.

- · A metallic aspect material with the advantages of plastic: easily cut and cheaper than metal.
- · Fast engraving thanks to the very thin surface layer.
- · Ideal for badges, trophy plates and awards and indoor applications.

### **AVAILABLE SHEET SIZES**





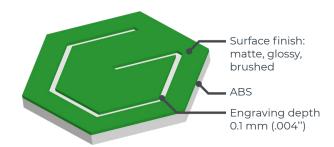


48 x 24"

610 x 610 mm 24 x 24"

610 x 305 mm 24 x 12"

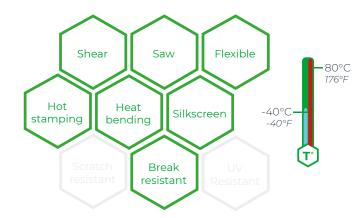
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES





Pictograms



Trophy plates



Indoor signage



Badges



# N ROTARY MATERIALS

# METALLEXTM - HARD COAT

# Metallic appearance for a high-end finish

Conform		Thickness
Surface colour	Core colour	1.5 mm (1/16'')
radiant silver	black	21892
brushed aluminum	black	21883
glossy silver	black	21882
radiant gold	black	21891
european gold	black	21884
glossy gold	black	21881

The surface layer of the Metallex™ Hard Coat can be lasered but the quality of the engraving may vary depending on the colours. Laser cutting is not recommended.

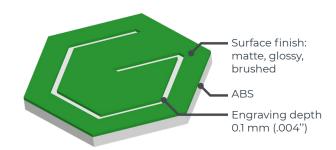
On demand pre-cut tags available, ideal for machines or to enhance productivity.

- $\cdot$  The Hard Coat version of Metallex<sup>TM</sup> has a surface layer that is even more resistant to scratches and fingerprints.
- $\cdot$  Metallex<sup>TM</sup> Hard Coat has a smooth, super glossy finish.
- · Ideal for badges, trophy plates, various awards and all indoor applications.

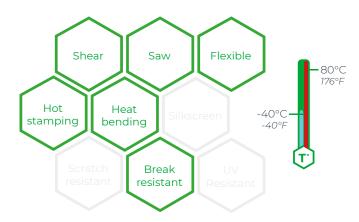
# **AVAILABLE SHEET SIZES**

1220 x 610 mm	610 x 610 mm	610 x 305 mm
48 x 24"	24 x 24"	24 x 12"

# MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES



# **APPLICATIONS**



Ornamental plates



Indoor signage



Badges



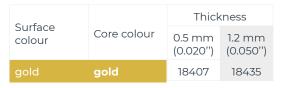
Small signage



# GRAVOMETALL™ - GLOSSY

# The high quality brass material





Note:

Diamond, rotary and burnish engraving. Pre-polished and lacquered. Apply clear lacquer after engraving to avoid tarnishing. For contrasting lettering, use Gravoxide or paint.

- · Ideal for ornamental plaques, trophy plates and high-end indoor signage.
- · For outdoor use, add a protective varnish after engraving.
- · High quality brass and high-end rendering with a shiny aspect.

# **AVAILABLE SHEET SIZES**

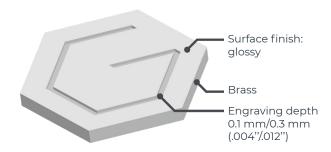




48 x 12"

610 x 305 mm 24 x 12"

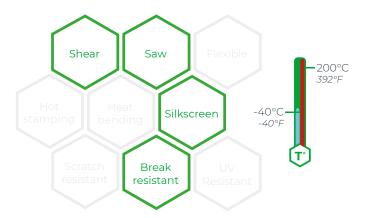
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES







Trophy plates

Indoor signage



# GRAVOMETALL™ - SATIN

# The high quality brass material

Courfees		Thickness		
Surface colour	Core colour	0.6 mm (0.025")	1.2 mm (0.050'')	1.6 mm (1/16")
gold	gold	18423	18438	18441
silver	gold	18429		

### Note:

Diamond, rotary and burnish engraving. Pre-polished and lacquered.

Apply clear lacquer after engraving to avoid tarnishing. For contrasting lettering, use Gravoxide or paint.

- · Ideal for ornamental plaques, trophy plates and high-end indoor signage.
- · For outdoor use, add a protective varnish after engraving.
- · Nice gold engraving contrast on the satin silver Gravometall™.

# **AVAILABLE SHEET SIZES**

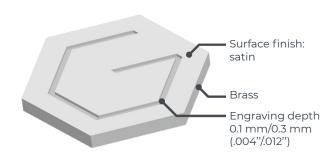
1220	x 305	mm



48 x 12"

610 x 305 mm 24 x 12"

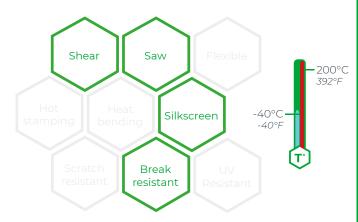
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



## MATERIAL CAPABILITIES









Architectural signage



# GRAVOBRASS™ EXTERIOR

# The watchmaking-quality brass for outdoor use

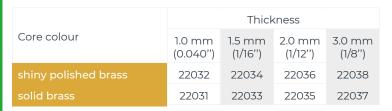












### Note:

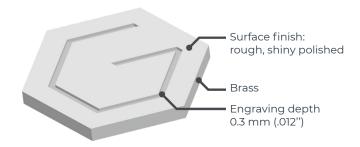
Brass oxidation is a natural phenomenon. Clean your  $\textit{Gravobrass}^{\text{\tiny{TM}}} \textit{Exterior regularly to preserve its brightness or add}$ a protective varnish after engraving. Solid brass is unpolished and may feature surface defects.

- · High quality engraver's brass.
- · Outdoor use: ideal for professional plaques and high-end signage.
- · For contrasting lettering, paint fill with Gravotech paint.

### **AVAILABLE SHEET SIZES**

1340 x 670 mm	670 x 670 mm	670 x 335 mm
52 x 26"	26 x 26"	26 x 13"

### MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES





Architectural signage



Company name plaques



High quality signage



Professional plaques



# **COLORED ALUMINUM**

# The coloured aluminium for a striking contrast

Surface		Thickness
colour	Core colour	0.6 mm (0.025'')
red	silver	34528
blue	silver	34497
satin gold		34595
glossy gold	silver	34596
satin silver	silver	34625
glossy silver	silver	34626
black	silver	34455

Note:

Black, blue and red have a glossy finish.

- · Ideal metal for labels, small plates and indoor signage.
- Great for creativity: astonishing contrast after rotary or fibre laser engraving. Also sublimatable.
- · Thin aluminium: easy to cut and shear.

# **AVAILABLE SHEET SIZES**

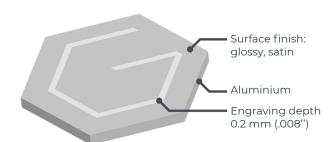
1220 x 30	5	mm



48 x 12"

610 x 305 mm 24 x 12"

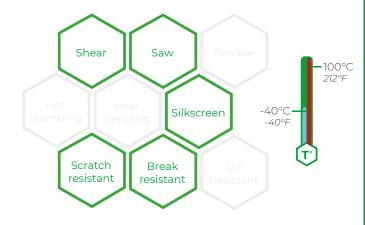
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES







Name plate



Informative signage



# GRAVOXALTM - MATTE

# The multipurpose anodised aluminium range















- · Strong anodisation for a durable protection of the material.
- · Ideal for the manufacture of front panels, the engraving of nameplates and industrial signage.
- · High-definition laser engraving to be carried out even at greyscales.

# **AVAILABLE SHEET SIZES**



1000 x 500 mm 39 x 19"

### Note:

Protective film on one side.

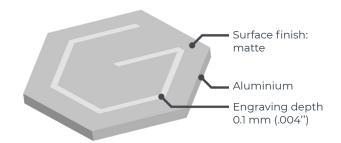
Due to the process, there can be stains in the corners of aluminium sheets.

Laser engraving on all colours except silver. The engraving contrast may vary according to the colour.

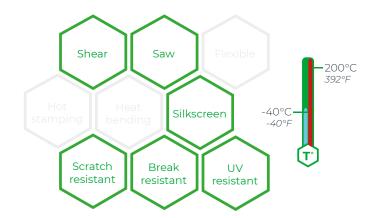
Size 2000 x 1000 mm (78 x 39") on request.

Gravoxal™ Matte silver also available in 4 mm (1/6"): Ref. 18388.

### MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES





Control panels





**Pictures** 

Small plates



# GRAVOXAL™ - GLOSSY

# The multipurpose anodised aluminium range

Curfosa		Thickness		
Surface colour	Core colour	1.0 mm (0.040")	1.5 mm (1/16'')	2.0 mm (1/12'')
champagne	aluminum	18640		
red	aluminum	18636	18658	
green	aluminum	18642	18664	
blue	aluminum	18638	18660	
silver		18618	18646	18668
steel look		30381	30382	30383
gold	aluminum	18630	18654	18674
black	aluminum	18624	18650	18671

Note:

Protective film on one side.

Due to the process, there can be stains in the corners of aluminium sheets.

Laser engraving on all colours except silver. The engraving contrast may vary according to the colour.

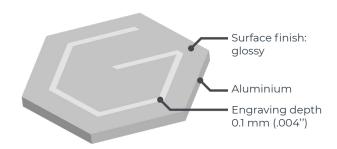
Size 2000 x 1000 mm (78 x 39") on request.

- · Strong anodisation for a durable protection of the material.
- · Ideal for the manufacture of front faces, the engraving of nameplates and industrial signage.
- · High-definition laser engraving to be carried out even at greyscales.

# **AVAILABLE SHEET SIZES**



# MATERIAL SPECIFICITIES



## MATERIAL CAPABILITIES





Lift/Stairs Lounge/Bar 🛶 Restaurant

Indoor signage





Exterior signage

# **GRAVOSTRALTM**

The advantages of aluminium combined with those of a phenolic base



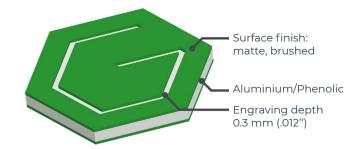
- \* References in green are double-sided
- Note: Black engraving. One side gold and one side silver (Ref. 18472 & 18482), or silver on both sides (Ref. 18471).

- · Aluminium surface on both sides.
- · Black phenolic core, no paint filling required.
- · Ideal for professional indoor signage.

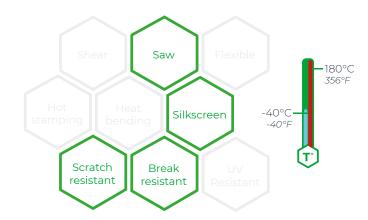
### **AVAILABLE SHEET SIZES**

1220 x 605 mm	610 x 605 mm	605 x 305 mm
48 x 23"	24 x 23"	23 x 12''

### MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES



### **APPLICATIONS**



Lindauer
DORNIER GMBH
Getr.-Nr. 124/3456
Type ZXR-4567
Z-Nr. 56-78-4
MNB HRTT7EEE
Bauj. 2001

Made in Germany

Identification plates







Signs for shops

Interior signage



# **GRAVOSTRATTM**

# An economical material for demanding applications

Surface		Thickness		
colour	Core colour	1.4 mm (0.055") *	2.5 mm (0.087") *	
white	black	22042	22049	
yellow	black	22044	22051	
red	white	22043	22050	
cool grey	black	22047		
black	white	22041	22048	

# \* References in green are double-sided

### Note:

Gravostrat™ can be laser engraved but not laser cut. Gravostrat™ may be subject to slight variations in thickness.

- · Double-sided rigid phenolic material with a glossy finish.
- · Ideal choice for all industrial identification needs.
- · Resistant to chemicals and solvents. nonflammable, conforms to military specifications ASTM D 709 ES-1, ES-2, ES-3, electrically nonconductive.

# **AVAILABLE SHEET SIZES**



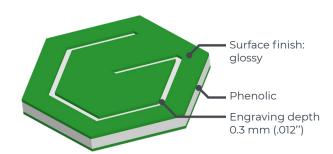


48 x 24"

605 x 600 mm 24 x 24"

600 x 300 mm 24 x 12"

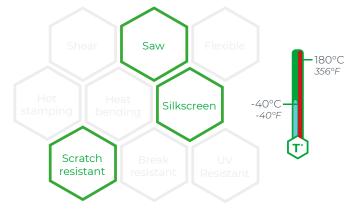
# MATERIAL SPECIFICITIES



# **COMPLEMENTARY PRODUCTS**



# MATERIAL CAPABILITIES





Safety sign

NYŁA MUZY



Push button

Industrial identification

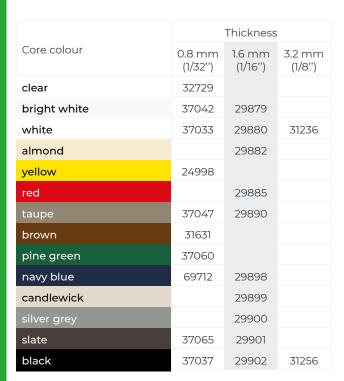
# **GRAVOTACTM**

# The indoor material for ADA compliant braille and tactile signage









# THE GRAVOTAC™ PROCESS



- 1°) Put a 0.8 mm (1/32") profile material to 1.6 mm (1/16") or 3.2 mm (1/8") substrate.
- 2°) Engrave using outline font.
- 3°) Peel excess profile material off substrate.

For better visibility, choose contrasted colours.

# **COMPLEMENTARY PRODUCTS**

See page 76



Gravoclean

### **APPLICATIONS**



Indoor signage



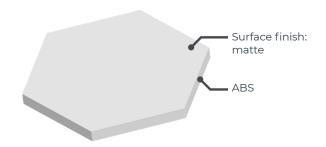
**Pictograms** 

- · Matte finish. Complies with Americans with Disabilities Act (ADA) and Disability Discrimination Act (DDA).
- · Ideal for signage in buildings open to the public.
- · Save time and order your sheets with adhesive backing.

# **AVAILABLE SHEET SIZES**



# MATERIAL SPECIFICITIES



# MATERIAL CAPABILITIES





Shape cutting



Braille and tactile signage









# SIGN HOLDERS & BASE PLATES

# **COUNTER AND DESK BASES**

Ideal to support small to medium-sized inserts. Supplied without signage plate.





	Insert thickness	Insert dimensions	Colour	Ref.
Plate stand	1.6 mm (0.06'')	200 x 100 mm max. (8 x 3.94" max.)	silver	19480

# **DESK HOLDERS**

Ready to be placed on a table, a desk or a counter to identify a person, a function or a department. Supplied without signage plate.





	Insert thickness	Insert dimensions	Colour	Ref.
Slimline plate holder	1.6 mm (0.06'')	178 x 25 mm (7 x 1'')	silver	30072
			gold	30073
Standard plate holder		203 x 51 mm (8 x 2")	silver	30076
		254 x 51 mm (10 x 2'')	silver	19479
		254 x 51 mm (10 x 1.26")	gold	34820

# **DOUBLE-SIDED HOLDERS**

Ideal for open/close signage or to indicate any changing information. Supplied without signage plate.



	Insert thickness	Insert dimensions	Colour	Ref.
Double-sided plate holder	1.6 mm (0.06'')	152 x 32 mm (6 x 1.26")	silver	30074

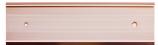


# **WALL BRACKETS**

Designed to identify a department or an office. Two finishing available available: bevelled borders or square borders.

Use double-sided tape or screws to fix.

Supplied without nameplate.





Bevelled border finish

Square border finish

	Insert thickness	Insert dimensions	Fixation type	Colour	Ref.
				gold	19476
		203 x 51 mm (8 x 2'')	screws &	silver	19485
		05 ( 53 (30 0))	adhesive	gold	30069
Wall plate holder with bevelled border	1.6 mm (0.06'')	254 x 51 mm (10 x 2'')		silver	30068
		102 x 25 mm (4 x 1'')	adhesive	silver	19482
		152 x 25 mm (6 x 1'')		silver	30066
		203 x 38 mm (8 x 1.5")	screws	silver	34888
Wall plate holder with bevelled border to be glued		203 x 25 mm (8 x 1")	adhesive	silver	19483
Wall plate holder with square border		254 x 51 mm (10 x 2")	screws	silver	65929

# **CORRIDOR BRACKETS**

Perfect to create a directional signage in corridors where the public flow needs strategic indications. Supplied with screws and cap nuts but without any signage plate.

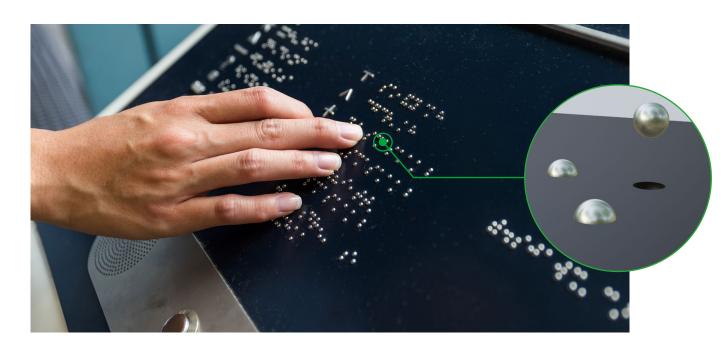




	Insert thickness	Insert dimensions	Fixation type	Colour	Ref.
7.2 man (0.172)	51 mm min. (2" min.)		silver	19486	
Wall bracket	3.2 mm (0.13")	102 mm min. (4" min.)	screws	silver	19487

# Our braille solution

braille is a system of tactile writing and reading for the use of blind and visually impaired people. There is no single universal braille system: different standards are used across the world, where sizes, character spacing and line spacing are specific to each individual language.



### **COMPATIBLE WITH**



IS400 Engraving area: 305 x 210 mm (12 x 8")



**IS8000** Engraving area: 610 x 1220 mm (24 x 47")

IS7000 Engraving area: 610 x 810 mm (24 x 32")

**IS6000** Engraving area: 610 x 410 mm (24 x 16")

# **SOFTWARE**

The Gravostyle™ braille option allows the transcription of text into braille:



- 127 languages available.
- Totally automated procedure involving drilling followed by the insertion of beads (optional):
  - Customised cleaning and bead insertion speed.
  - Specific parameters for Gravotac<sup>™</sup>, laminates, aluminum and plastics (ABS, PMMA)



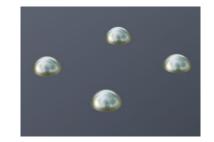
# **DRILLING TOOLS**

Refer to the selection guide to pick the right drilling tool reference, depending on the beads and support materials.

	BRAILLE TOOL SELECTION GUIDE				
	Adhesive-fr	Materials with adhesive			
Support Material	Steel beads	Acrylic beads	All beads		
Metals	48767	48767	48768		
Acrylics	48767	48767	48768		
Gravotac™	48766	48766	48768		
Phenolic	48767	48767	48768		
ABS + 2Ply	48686	48686	48767		

# **BRAILLE BEADS**

Ref.	Description	
49933	Stainless steel beads (x10 000)*	
49935	Clear acrylic beads (x10 000)	
49937	White acrylic beads (x10 000)	
49936	Black acrylic beads (x10 000)	



<sup>\*</sup> Stainless steel beads are recommended when using our semi-automatic or automatic beads dispensers.

# **BEAD DISPENSER**

Automatic and semi-automatic braille kit.



Ref.	Description
70711	Automatic braille for IS400
70713	Automatic braille for IS 6/7/8000 IQ
70714	Automatic braille for IS 6/7/8000 XP
49959	Semi-automatic braille kit for IS400 & ISx000

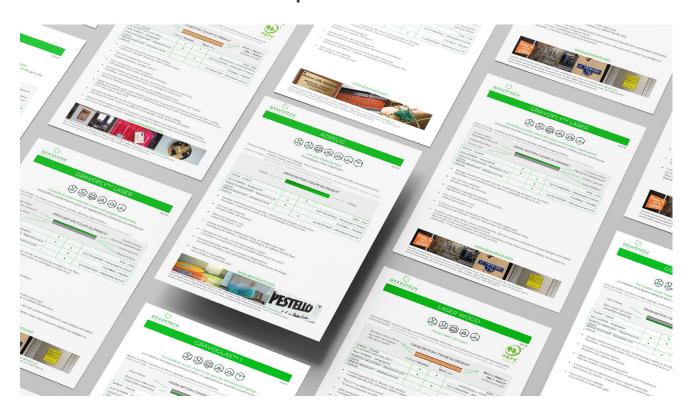
# **MICROPEL**



Antistatic solution for acrylic braille beads. Ref. 76254



# Did you know that we have several datasheets for our products?



### WHAT ARE TECHNICAL OR SAFETY DATASHEETS?

The technical datasheet (TDS) provides information on the composition, technical characteristics and conditions of use of our products.

The safety datasheet (SDS) is a document that includes the information necessary to prevent accidents and ensure safety when using a preparation or a hazardous (chemical) substance. This document informs professionals who use this type of product in their daily work of the risks involved. Provided by the supplier or distributor, this document must be available for all hazardous products sold.

The regulation on hazardous substances requires the provision of the safety data sheet to the end user. Gravotech goes even further in its requirement to provide information to end users and has decided to provide safety data sheets even for materials intended for engraving (not subject to hazardous substances).

You can find SDS for the following items:

- Materials for laser engraving: plastics, acrylics, metallics and wood.
- Materials for mechanical engraving: plastics, metallics, phenolics.
- Engraving supplies: lubricants, cleaning agents, adhesives and colouring products.

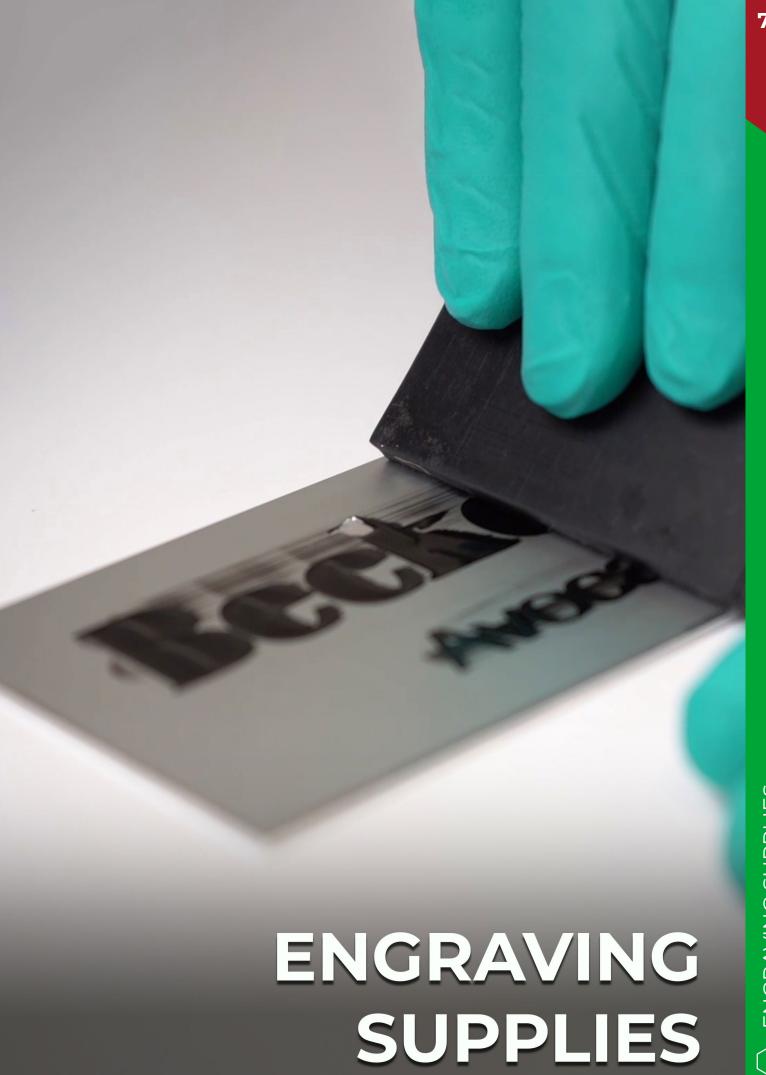
SDS are the responsibility of Gravotech and must be translated by an accredited institution\*.

\*Information is provided as a guide only.

Our datasheets are available here:









# COLOURING

# Laser metal marking

### METAL MARKER G

The Metal Marker G is a metal black laser marking product for CO2 laser engravers. It allows a black marking on aluminum, brass, mild or stainless steel, magnesium and copper.

The liquid form of the Metal Marker G ensures a non-volatile application reducing the need for personal protective equipment (PPE) to the simple use of gloves. Unlike aerosol products, it is not necessary to wear a protective mask.







	Packaging type	Colour	Ref.
Metal Marker G	Bottle - 90 mL (3 oz)	black	86424*



# **THERMARK®**

Water-based for a fast clean up. A thin coat of material can be sprayed onto the metal, then left to dry for less than 2 minutes and engraved with your laser.

The excess water-based material can easily be washed off to reveal the final black mark.

	Packaging type	Ref.
The and de all ( ) I had a 1 /	Aerosol - 170 g (6 oz)	67120*
TherMark® LMM 14	Bottle - 50 g (1.76 oz)	67119
TherMark® LMM 6018LF1	Tape - 2.54 cm x 15 m (1" x 50')	71866
TherMark® LMM 6018LF2	Tape - 5 cm x 15 m (2'' x 50')	67121



# **CERMARK®**

Solvent-based for easy handling before marking. This range contains a hardener that allows the products to be easily handled prior to marking with your laser (ideal for high production quota).

	Packaging type	Ref.
CerMark® LMM 6000	Aerosol - 340 g (12 oz)	68880*
	Paste - 50 g (1.76 oz)	68878*
	Paste - 250 g (8.82 oz)	68879*
	Paste - 500 g (17.64 oz)	69974*

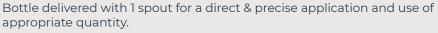
Caution before use: these colouring products require special security measures. Use them in well ventilated rooms only and wear suitable protective clothing and gloves.



# **Paints**

# **GRAVOLAQUE**

Polyurethane, ultra shine paint, available in 6 colours. Gravolaque is designed to colour Gravoglas<sup>TM</sup> 1, Gravoglas<sup>TM</sup> 2-PLEX<sup>TM</sup> subsurface, anodised aluminium and brass. For other colours, please contact us.





Watch our videos!





	Packaging type	Colour	Ref.
	Bottle with spout - 250 mL (8.45 oz)	black	72194*
		white	72195*
Gravolaque		red	72196*
		blue	72197*
		gold	72198*
		green	72199*
Spare spout for Gravolaque	Spout - 1 unit	N/A	72204

# **NITROLAQUE**



Versatile and fast drying, for colouring rotary engraving on metal, steel and plastic (except Gravoglas  $^{\rm TM}$  1).

	Packaging type	Colour	Ref.
NE transferance	Bottle - 250 mL	white	30373*
Nitrolaque	(8.45 oz)	black	30374*

# **APPLICATION KIT**



Pack - 1 unit

Ref. 72886

Application kit including:

- Spatula 75 x 60 mm (2.95 x 2.36") (Ref. 72885)
- Rubafix roll (Ref. 16248)
- Tissues (Ref. 24296)

(items can be ordered separately)



# **Diluters**



# **CLEANING DILUTER FOR TOOLS**

Bottle - 1 L (33.8 oz)

Ref. 19468\*



# **APPLICATION DILUTER**

Bottle - 1 L (33.8 oz)

Ref. 19469\*

# Oxydising agents



# **GRAVOXIDE**

Bottle with application pad - 90 mL (3 oz)

Designed to blacken fine engraving on Gravometall. Rotary engraving only. Bottle delivered with application cotton



# **ALOXIDE**

Bottle with application pad - 90 mL (3 oz)

Designed to blacken fine engraving on glossy anodised

Rotary engraving only. Bottle delivered with application cotton



# Wax sticks

# **COLD WAX STICKS**



Suitable for colouring small characters. Range of 6 colours available.

	Packaging type	Colour	Ref.
		silver	20214
	Box - 5 sticks	white	20215
Calal atial a		blue	20216
Cold wax sticks		black	20218
		gold	20219
		red	20220

# **GILDING WAX**

Very fine metallic particles, coated with a wax binder. Suitable for glass and metal. The use of gilding waxes allows to create a beautiful high value contrast.



	Packaging type	Colour	Ref.
Empire	Unit - 30 mL	gold	86550
Silver	(1 oz)	silver	86551



# **ODORLESS MINERAL SPIRIT**

Bottle - 245 mL (8.3 oz)

Ref. 86552

This spirit helps remove gilding wax surplus around the engraving and clean the tools (spatula, brushes).

Odorless, it presents no risk of irritations or allergies.



# **CLEANING**

# **GRAVOCLEAN**

Multi-use green cleaner. Ideal to remove marks on plates before or after engraving. Non-agressive to acrylics and ABS. Suitable for Gravogrip™ cleaning.





	Packaging type	Ref.
	Spray - 750 mL (25.36 oz)	73180
Gravoclean	Box - 50 wipes	73181



# LASER OPTICS CLEANER

Pack - 125 mL (4.22 oz)

Ref. 26327\*

Keeps your laser lens clean by removing dust and particles. Increases the optics lifetime, reduces power loss and lens heating.



# **UNIVERSAL CLEANER**

Bottle - 1 L (33.8 oz)

Ref. 23913\*

Ideal for cleaning metal and plastic surfaces (except ABS). Apply with a tissue.



# INDUSTRIAL DEGREASING SPRAY

Spray - 500 mL (16.9 oz)

Ref. 23912\*

To remove glue leftover on metal. Manual spraying.



# LUBRICATING

# **ENGRAVING GEL**

Water-based solution, Engraving gel is a non-irritating and odourless lubricant for glass, aluminium and soft steel engraving. Perfect for in-store use.







videos!

	Packaging type	Ref.
Engraving gel	Bottle with spout - 200 mL (6.76 oz)	83957



### **SOLUBLE OIL**

Bottle - 1 L (33.8 oz)

Ref. 12913

For glass engraving only. Automatic dispensing with M40 Gift lubricating device.



# **ENGRAVOLUBE SOLUTION**

Bottle with spout - 240 mL (8 oz)

Ref. 26887

Engravolube is a special lubricant which increases cutters lifetime and ensures a clean and smooth engraving.



### **VARGOL**

Bottle - 500 mL (16.9 oz)

Ref. 21780

Lubricant for VA circular saws. Synthetic oil for use with metals. Application with Vargol dispenser.



# **VARGOL BOTTLE DISPENSER**

Unit - 1 unit

Ref. 21781

Vargol dispenser for VARGA saws, allows to set the lubricant flow according to the thickness of the material to cut.



### TARFIL™ AT

Bottle - 215 g (7.58 oz)

Ref. 19526

Designed for ferrous metal engraving with local manual application.



# VECTOLUB™ LUBRICANT OIL

Bottle - 2 L (67.6 oz)

Ref. 23494

For non ferrous metal engraving. Automatic dispensing with Gravotech Spray mist lubricating device.



# POLYCOUPE™ **LUBRICANT SPRAY**

Spray - 250 mL (8.45 oz)

Ref. 19527\*

Apply manually on the tool tips, for non ferrous metal engraving.



### SURFEX® LUBRICANT

Bottle - 1 L (33.8 oz)

Ref. 30368

For aluminium engraving and cutting only. Manual dispensing.



# **FIXING**

# Double-sided tapes



# **DOUBLE-SIDED 14 MM**

Unit - 14 mm x 50 m (0.55" x 55 yds)

# Ref. 30369

For long-term mounting of engraved plates. Use on smooth surfaces. Can be used to fix Braille beads.



# **DOUBLE-SIDED 19 MM**

Unit - 19 mm x 50 m (0.75" x 55 yds)

# Ref. 85904

For long-term mounting of engraved plates. Ideal for smooth surfaces.



# **DOUBLE-SIDED 50 MM**

Unit - 50 mm x 50 m (1.97" x 55 yds)

# Ref. 30372

For long-term mounting of engraved plates. Ideal for electrical switchboards.

# Special tapes



# **PROTECTIVE ADHESIVE TAPE**

Unit - 50 mm x 100 m (1.97" x 109 yds)

# Ref. 19528

To protect jewelry and brass plates while engraving.



# ADHESIVE MOUNTING **TAPE**

Unit - 25 mm x 25 m (0.98" x 27 yds)

# Ref. 20151\*

For temporary mounting of plates.



### **TRANSFER**

Unit - 20 mm x 30 m (0.79" x 33 yds)

### Ref. 21121

For long-term mounting of engraved plates. Ideal for curved surfaces, instant adhesion.



# Fixing glue



### **GRAVOFIX**

Bottle - 250 mL (8.45 oz)

Ref. 19360\*

Tin of solvent especially designed to fix plasticbacked pins to badges.

Always clean the surface before applying the glue to ensure a perfect adhesion.



# **SEMI-ADHESIVE SPRAY GLUE**

Spray - 500 mL (16.9 oz)

Ref. 23914

Aerosol for non-permanent fixing and repositioning of lightweight materials. Not recommended with expanded polystyrene.

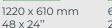
# **GRAVOGRIPTM**

# Ref. 78056

Our famous flexible material, to be placed under the part to mark or cut. Ensures a strong grip to maintain the part, faster and easier to use than jigs. For IM3, M20, M40 & IS200 use a support table.

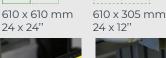
Cut to size on request.















video!



# Laser Wood accessories



# MASKING PAPER

Unit - 1 unit

Ref. 83057

Protect your Laser Wood sheets before laser cutting with this masking paper.

Prevents contact of fume and dust while the laser is cutting, ensuring a neat result.



# **CLAMPS**

Pack - 6 units

Spring clamps designed to fasten plates such as Laser Wood to the honeycomb table. Prevents warping. Can be used with many other materials, thin or thick.



# MECHANICAL FASTENINGS

# Ball chains



# **BALL CHAINS**

3 colours available.

To attach tags, medals or any drilled item to a wide range of objects (suitcase, pipe, key ring, valve, etc.). Made of coloured stainless steel bead of 2.42 mm (0.095"), it measures 114 mm (4.5") long.

	Packaging type	Colour	Ref.
		silver	69880
Ball chain	Ball chain Pack - 10 units	gold	69883
		black	69452







# **NICKEL-PLATED BRASS W/ FASTENER**

Pack - 100 units

Ref. 19534

Beads of 2.25 mm (0.088") diameter and 150 mm (5.91") length.

# **NICKEL-PLATED BRASS W/O FASTENER**

Pack - 10 units

Ref. 19535

Beads of 2.25 mm (0.088") diameter and 1.5 m (59") length.

# **FASTENERS**

Box - 100 units

Ref. 19536

To attach beads and close ball chains. Use with 2.25 mm (0.088") diameter ball chains.



# Ties



# S-HOOK RINGS

Ideal to fix all your medals and tags.



	Packaging type	Colour	Ref.
S-Hook 21 mm (0.82'')		golden	30152
S-Hook 26 mm (1.02")	Pack - 25 units	zinc- plated	30151

# **NICKEL-PLATED STEEL RING**



Ideal to fix all your medals and tags.

	Packaging type	Colour	Ref.
Steel ring Ø 13 mm (0.51")			19532
Steel ring Ø 20 mm (0.78'')	Pack - 100 units	nickel- plated	19530



# Wooden supports



# **WOODEN SUPPORT**

Unit - 1 unit

Ref. 19470

Wooden support to enhance engraved plates. Dimensions: 340 x 240 x 20 mm (13.4 x 9.45 x 0.79"). Composition: tropical hardwood. Indoor & outdoor use.

# Screws and spacers

# **SCREWS**













Includes screws and screw covers. Ensures a very high quality finishing of the mounted plates.

	Packaging type	Colour	Ref.
Screws 4 x 20 mm		gold	25731
(0.16 x 0.79'')	Pack - 100 units	silver	25732
Screws 4 x 30 mm		gold	25733
(0.16 x 1.18'')		silver	25734

# **SPACERS**



The ideal fasteners to add a finishing touch to professional plates, hotel signage etc.

	Packaging type	Outside diameter	Distance from wall	Possible material thickness	Inside diameter	Colour	Ref.
Rounded	Pack - 4	15 mm	26 mm	0-14 mm	9 mm	golden	19471
spacers	units	(0.59'')	(1.02'')	(0-0.55'')	(0.35")	silver	19472



# Stainless steel support

# STAINLESS STEEL PIPE SUPPORT



When gluing labels on hot pipes is not possible due to high temperatures (i.e over  $70^{\circ}$  C /  $158^{\circ}$  F), fixing them becomes very easy with a stainless support. Rounded corners. Hole diameter 3.2 mm (0.125").

	Packaging type	Ref.
Pipe support 80 x 40 mm (3.15 x 1.6")	D 1 10 11	19547
Pipe support 120 x 60 mm (4.72 x 2.36")	Pack - 10 units	19548



# **COLLARS & HEADS**

Unit - 25 m (27 yds) & 50 heads

Ref 19551

This kit contains collars and heads to attach the stainless steel support and its sign directly onto any pipe.

Delivered in a 25 m (27 yds) roller including 50 attach heads.

# Plant label holder



# ALUMINIUM PLANT LABEL HOLDER

Unit - 1 unit

Ref. 30149

Composed of 300 mm (11.81") long shaft and a flat slanted support able to receive a 120 x 53 mm (4.72 x 2.08") sized label. Suitable for 1.6 mm (1/16") thick material.



# ZINC-PLATED STEEL PLANT LABEL HOLDER

Unit - 1 unit

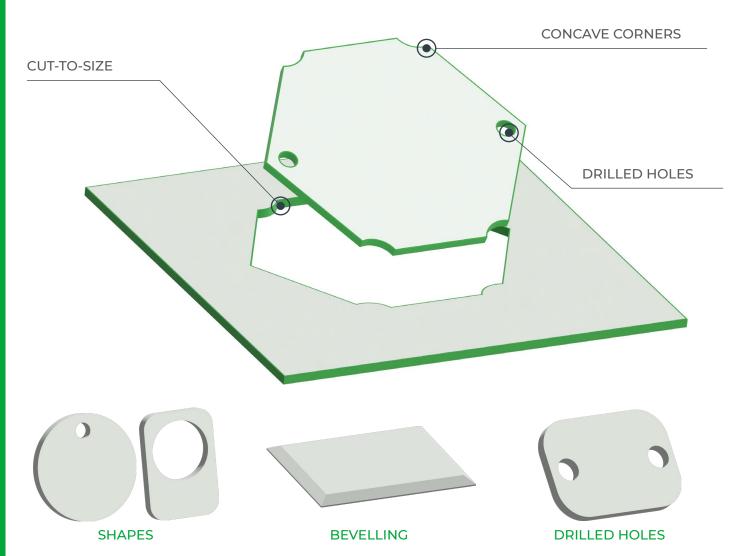
Ref. 30150

Composed of 600 mm (23.62") long shaft and a flat slanted support can hold a 120 x 48 mm ( $4.72 \times 1.89$ ") sized label. Suitable for 1.6 mm (1/16") thick material.



# Is your machine not available to handle this new and urgent order?

We provide custom-made plates according to your specifications, from one unit to series.



Custom shapes made to your specifications.

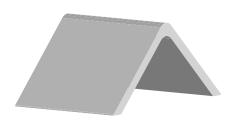
Bevelling is cutting the edges with a 45° angle to create a slope all around the part.

To accommodate your metal and plastic mounting needs, diameter and position are customisable.



# ROUNDED / CONCAVE CORNERS

We offer a wide selection of profiles and radiuses for corners.



# **BENDING**

Plastic materials can be bent into stand-up display signs, badges, etc. Maximum length of the bend is 500 mm (20").



Adhesive: 467MP or 468MP available depending on the roughness of the substrate.

Magnetic: Ideal for metallic shelves, magnetic backing can be applied to to plates, strips and sheets.







# **CREATE YOUR OWN BADGES**

Make your own badges with any Gravotech engraving material by simply adding a fixing device.



# videos!

# Badges hardware with adhesive back









# **COMPACT MAGNETIC FASTENER**

Box - 10 25 x 15 mm (0.98 x 0.59") Ref. 19362

# LARGE MAGNETIC **FASTENER**

Pack - 10 45 x 15 mm (1.77 x 0.59") Ref. 30365

# **SAFETY PIN**

Pack - 50 42 x 9 mm (1.65 x 0.35") Ref. 30364

# **CLIP WITH SAFETY** PIN

Pack - 50 24 x 12 mm (0.94 x 0.47") Ref. 19358

# Badges hardware for heat fusing





# **SAFETY PIN**

Unit - 1 Ref. 30355

# **CLUTCH**

Unit - 1 Ref. 30358



# Badges hardware to be glued

These fasteners need to be glued to the badges with Gravofix. Only works with ABS material.







# **CLUTCH BAR**

Pack - 20 **Ref. 30362** 

# **SAFETY PIN**

Pack - 50 42 x 8 mm (1.65 x 0.31") Ref. 19345

# PIN WITH CLUTCH

Pack - 50 Ø 11 mm (Ø 0.43'')

Ref. 30363

# **GRAVOFIX**

Tin of solvent especially designed to fix plastic-backed pins to badges.

Always clean the surface before applying the glue to ensure a perfect adhesion.



	Packaging type	Ref.
Gravofix	Bottle - 250 mL (8.45 oz)	19360*



# BADGES COLOURED PLASTIC FRAMES

Enhance any badge by adding a golden or silver effect frame. Ideal with a 0.8 mm (1/32") thick material. Delivered without fastener.



	Packaging type	Colour	Ref.
Gold plastic frame	D 1 50	gold	19354
Silver plastic frame	Pack - 50	silver	19355



# **DOOR PLATES**

# Premium solid brass door plates

Large variety of shapes available. These solid brass door plates are all varnished to prevent oxidation. Use Gravotech colouring products to create a contrasted engraving.









# **MODEL A**

66 x 37 mm (2.60 x 1.46")		
Unit - 1	Ref. 27487	
Pack - 6	Ref. 78939	

# **MODEL B**

105 x 42 mm (4.14 x 1.65")		
Unit - 1	Ref. 21812	
Pack - 6	Ref. 78927	

# MODEL C

105 x 54 mm (4.14 x 2.13'')		
Unit - 1	Ref. 22088	
Pack - 6	Ref. 78929	

# MODEL D

100 x 40 mm (3.94 x 1.58'')		
Unit - 1	Ref. 22089	
Pack - 6	Ref. 78935	









# **MODEL E**

83 x 48 mm (3.27 x 1.89'')		
Unit - 1	Ref. 22090	
Pack - 6	Ref. 78932	

# **MODEL F**

135 x 65 mm (5.32 x 2.56'')		
Unit - 1	Ref. 22091	
Pack - 6	Ref. 78931	

# **MODEL G**

130 x 30 mm (5.12 x 1.18'')	
Unit - 1	Ref. 22092
Pack - 6	Ref. 78938

# **MODEL H**

97 x 33 mm (3.82 x 1.30")		
Unit - 1	Ref. 22093	
Pack - 6	Ref. 78936	









# **MODEL I**

160 x 60 mm (6.30 x 2.36'')		
Unit - 1	Ref. 22094	
Pack - 6	Ref. 78926	

# **MODEL J**

100 x 28 mm (3.94 x 1.10")		
Unit - 1	Ref. 22095	
Pack - 6	Ref. 78930	

# **MODEL K**

122 x 42 mm (4.81 x 1.65'')	
Unit - 1	Ref. 22096
Pack - 6	Ref. 78928

# MODEL L

115 x 40 mm (4.53 x 1.58'')		
Unit - 1	Ref. 30085	
Pack - 6	Ref. 78933	



# ENGRAVABLES

# Gold'n door plates

Brass door plates coated with ultra resistant varnish and golden effect. Easy to install thanks to the glued back.

Use Gravotech colouring products to create a contrasted engraving.









MODEL U.1.

MODEL U.2.

MODEL V.1.

MODEL V.2.

150 x 50 mm	(5.61 x 1.97'')
Unit - 1	Ref. 48336

150 x 50 mm	(5.61 x 1.97'')
Unit - 1	Ref. 48335

145 x 45 mm (5.71 x 1.77'')	
Unit - 1	Ref. 48338

145 x 45 mm (5.71 x 1.77")	
Unit - 1	Ref. 48337







MODEL W.1.

MODEL W.2.

MODEL X.

135 x 65 mm (	5.32 x 2.56'')
Unit - 1	Ref. 48334

135 X 65 mm (5.32 X 2.56°)		
Unit - 1	Ref. 48333	

150 x 85 mm (5.91 x 3.35'')	
Unit - 1	Ref. 48339

# **GRAVOLAQUE**

Polyurethane, ultra shine paint, available in 6 colours. Gravolaque is designed to colour Gravoglas<sup>TM</sup> 1, Gravoglas<sup>TM</sup> 2-PLEX<sup>TM</sup> subsurface, anodised aluminium and brass. For other colours, please contact us.

Bottle delivered with 1 spout for a direct & precise application and use of appropriate quantity.



	Packaging type	Colour	Ref.	
	Bottle with spout - 250 mL (8.45 oz)		black	72194*
Gravolaque		white	72195*	
		red	72196*	
		blue	72197*	
		gold	72198*	
		green	72199*	
Spare spout for Gravolaque	Spout - 1 unit	N/A	72204	



Watch our videos!



# **MEDALS**

# Anodized aluminium medals

Anodized aluminium medals with hole. Can be diamond dragged, milled or laser engraved. Golden and silver medals will result in a non-contrasting engraving with a CO2 laser.

Packaged by 10.









MEDAL A - LARGE BONE

MEDAL B - SMALL BONE

MEDAL C - LARGE PAW

MEDAL D - SMALL PAW

25 x 38 mm (0.98 x 1.49'') 19 x 32 mm (0.74 x 1.25'') 35 x 33 mm (1.37 x 1.29") 28 x 26 mm (1.1 x 1.02")









MEDAL E - LARGE HEART

MEDAL F - SMALL HEART

MEDAL G - SMALL CIRCLE

MEDAL H - MILITARY TAG

32 x 32 mm (1.25 x 1.25") 25 x 25 mm (0.98 x 0.98'') 25 x 25 mm (0.98 x 0.98'')

28 x 50 mm (1.1 x 1.96")





MEDAL I - CLOVER

MEDAL J - LARGE CIRCLE

33 x 33 mm (1.29 x 1.29'')

38 x 38 mm (1.49 x 1.49'')



# MEDAL A - LARGE **BONE**

# MEDAL B - SMALL BONE

# MEDAL C - LARGE PAW MEDAL D - SMALL PAW

Colour	Ref.
silver	69285
gold	69286
blue	69287
light blue	69288
red	69289
green	69290
purple	69291
pink	69293
black	69294

Colour	Ref.
silver	69295
gold	69296
blue	69297
light blue	69298
red	69299
green	69300
purple	69301
pink	69303
black	69304

Colour	Ref.
silver	69305
gold	69306
blue	69307
red	69309

Colour	Ref.
silver	69315
blue	69317
red	69319
pink	69323
black	69324

# MEDAL E - LARGE **HEART**

# MEDAL F - SMALL **HEART**

# MEDAL G - SMALL CIRCLE

# **MEDAL H - MILITARY TAG**

Colour	Ref.
pink	69273
red	69269
gold	69266
silver	69265

Colour	Ref.
silver	69275
gold	69276
red	69279
pink	69283

Colour	Ref.
silver	69325
gold	69326
blue	69327
red	69329
black	69334

Colour	Ref.
gold	69366
silver	69365
blue	69367
light blue	69368
red	69369
green	69370
orange	69372
black	69374

# MEDAL I - CLOVER

MEDAL J - LARGE CIRCLE

Colour	Ref.
green	69420

Colour	Ref.
gold	69336
blue	69337
red	69339
black	69344

# **BALL CHAINS**



To attach tags, medals or any drilled item to a wide range of objects (suitcase, pipe, key ring, valve, etc.). Made of coloured stainless steel bead of 2.42 mm (0.095"), it measures 114 mm (4.5") long.

	Packaging type	Colour	Ref.
	chain Pack - 10 units	silver	69880
Ball chain		gold	69883
		black	69452



# **Brass medals**

Brass medal with effect «shiny gold» or «nickel-plated». Includes one or several holes for fixing. Can be diamond dragged, milled or laser engraved.

Use Gravotech colouring products to create a contrasted engraving.



# **MODEL A**

Colour	Dimensions	Hole diameter	Packaging type	Ref.
golden	30 x 31 mm (1.18 x 1.22'')	3.5 mm (0.14")	Pack - 10	23906

# **MODEL B**



Colour	Dimensions	Hole diameter	Packaging type	Ref.
nickel-plated	15 x 71 mm (0.59 x 2.79'')	3 mm (0.12'')	Pack - 10	47820

# **MODEL C**



Colour	Dimensions	Hole diameter	Packaging type	Ref.
golden	12 x 61 mm (0.47 x 2.40")	3 mm	Pack - 10	47818
nickel-plated		(0.12'')	Pack - 10	47819

# MODEL D



Colour	Dimensions	Hole diameter	Packaging type	Ref.
golden	Ø 33 mm	4 mm	Pack - 10	47813
nickel-plated	(Ø 1.29'')	(0.16'')	Pack - 10	47810

# **MODEL E**



Colour	Dimensions	Hole diameter	Packaging type	Ref.
golden	Ø 25 mm	4 mm	Pack - 10	47812
nickel-plated	(Ø 0.98'')	(0.16'')	Pack - 10	47809

# **MODEL F**



Colour	Dimensions	Hole diameter	Packaging type	Ref.
golden	Ø 22 mm	4 mm	Pack - 10	47811
nickel-plated	(Ø 0.86'')	(0.16'')	Pack - 10	47808



# Stainless steel medals

Recommended for harsh environment, ideal for industrial applications or any application with an extended lifetime.

Use Gravotech colouring products to create a contrasted engraving.



# **MODEL G**

Colour	Dimensions	Hole diameter	Packaging type	Ref.
steel	25 x 29 mm (1.98 x 1.14'')	3.5 mm (0.12'')	Pack - 10	30161



# **MODEL H**

Colour	Dimensions	Hole diameter	Packaging type	Ref.
steel	34 x 34 mm (1.33 x 1.33'')	3.5 mm (0.12'')	Pack - 10	30162



# **MODEL I**

Colour	Dimensions	Hole diameter	Packaging type	Ref.
steel	30 x 31 mm (1.18 x 1.22'')	3.5 mm (0.12'')	Pack - 10	23907

# Hotel key rings

Hotel key ring made from anodized aluminum with a rubber shock ring to prevent scratches. Can be diamond dragged, milled or laser engraved.

Delivered individually.





Colour	Dimensions	Ref.
silver	29 x 88 mm (1.15 x 3.4")	30132
gold		30133

# **ROUNDED HOTEL KEY RINGS**



Colour	Dimensions	Ref.
silver	29 x 80 mm (1.15 x 3.15'')	30134
gold		30135



# **ORNAMENTAL PLATES**

# Ornamental metallic plates

Natural steel or golden aspect ornamental plates. Can be diamond dragged, milled or laser engraved. Includes 2 holes on the sides for fixing. Dedicated to high value gifting, awards or artistic signage. Packaged by 50 units.

# GRAVOXAL™, NATURAL STEEL ASPECT



Gravotech material	Colour	Dimensions	Hole diameter	Ref.
		71 x 15 mm (2.80 x 0.59")		30125
Gravoxal™, steel look 1.0 mm (0.040'')	steel	89 x 15.9 mm (3.51 x 0.63'')	3 mm (1/8'')	30123
1.0 11111 (0.040 )		61 x 12 mm (2.40 x 0.47")		30124

# GRAVOMETALL™, GOLDEN ASPECT



Gravotech material	Colour	Dimensions	Hole diameter	Ref.
	satin gold	glossy gold (2.40 x 0.47")	3 mm	58786
Gravometall™	glossy gold			58785
0.6 mm (0.025'')	satin gold		(1/8'')	58788
	glossy gold			58787

# **METALLEX**<sup>TM</sup>



Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Metallex™	matte silver/	63.5 x 9.5 mm	3 mm	30112
1.5 mm (1/16'')	black	(2.50 x 0.37'')	(1/8")	

# Auto-adhesive ornamental plates

Small rounded shaped Gravometall™ plates with adhesive back. Can be diamond dragged, milled or laser engraved. Dedicated to high value gifting, awards or artistic signage. Packaged by 50 units.

# SELF-ADHESIVE GRAVOMETALL™



Gravotech material	Colour	Dimensions	Ref.
Gravometall™	satin silver	40 x 10 mm	49125
0.6 mm (0.025'')	satin gold	(1.58 x 0.39'')	61323



# **KEY TAGS**

# Aluminium tags

Suitable for milling or laser engraving. Initially dedicated to key tags but also very popular in industrial identification and signage. Packaged by 10 units.



# **ROUNDED ALUMINIUM KEY TAGS**

Colour	Dimensions	Hole diameter	Ref.
blue			30138
green	30 mm (1.18'')	/ no no	30139
gold	( ,	4 mm (0.15")	30136
red	38 mm (1.49'')		30141

# SHAPED ALUMINIUM KEY TAGS



Colour	Dimensions	Hole diameter	Ref.
red	65 x 30 mm (2.55 x 1.18'')		19193
blue		4 mm (0.15")	19194
green			19195
gold			19196

# **RECTANGULAR ALUMINIUM KEY TAGS**



Colour	Dimensions	Hole diameter	Ref.
red	40 x 16 mm (1.57 x 0.62")		19189
blue		4 mm	19190
green		(0.15'')	19191
gold			19192

# Ties

# **NICKEL-PLATED STEEL RING**



Colour	Dimensions	Packaging type	Ref.
	Ø 13 mm (Ø 0.51'')	Pack - 100	19532
nickel-plated	Ø 20 mm (Ø 0.78'')	Pack - 100	19530



# **ELECTRICAL IDENTIFICATION**

# Legend plates type 440

To identify electrical and industrial switches. Packaged by 50 units.



# TYPE 440 BLACK WHITE

Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Gravoply™ 1 1.6 mm (1/16'')	black/white	30 x 40 mm (1.18 x 1.57'')	22.5 mm	19243
GrayonlyIM 2			(0.88'')	22071
Gravoply™ 2 0.8 mm (1/32'')		,	24.5 mm (0.96'')	19240



# TYPE 440 WHITE BLACK

Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Gravoply™ 1 1.6 mm (1/16'')			22.5 mm	19244
GrayonlyIM 2	white/black	30 x 40 mm (1.18 x 1.57'')	(0.88'')	22072
Gravoply™ 2 0.8 mm (1/32'')		,	24.5 mm (0.96'')	19241



# TYPE 440 RED WHITE

Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Gravoply™ 1 1.6 mm (1/16'')		30 x 40 mm (1.18 x 1.57'')	22.5 mm	19245
Gravoply™ 2	red/white		(0.88'')	22073
0.8 mm (1/32'')			24.5 mm (0.96'')	22066





# TYPE 440 BLACK WHITE RED

Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Gravoply™ 2		/ . 30 x 40 mm	22.5 mm (0.88'')	22075
double-sided 0.8 mm (1/32'')	black/white/red	(1.18 x 1.57'')	24.5 mm (0.96'')	22068





# TYPE 440 WHITE BLACK YELLOW

Gravotech material	Colour	Dimensions	Hole diameter	Ref.
Gravoply™ 2 double-sided 0.8 mm (1/32'')	white/black/ yellow	30 x 40 mm (1.18 x 1.57")	24.5 mm (0.96")	22069



# Strips for electrical cabinets

To identify item lines on electrical cabinet doors or boards. Minimum of order: 25 units.

Other dimensions, colors or materials available on demand.

# **STRIPS 610 X 10 MM**



Gravotech material	Colour	Dimensions	Ref.
	black/white		19283
Gravoply™ 2 1.5 mm (1/16") with adhesive back	white/black	610 x 10 mm	19287
	red/white	(24 × 0.39'')	19291
	blue/white		19295

# **STRIPS 610 X 15 MM**

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16'')	white/black		19272
	black/white		19284
Gravoply™ 2	white/black	610 x 15 mm (24 x 0.59'')	19288
1.5 mm (1/16") with adhesive back	red/white		19292
	blue/white		19296

# **STRIPS 610 X 20 MM**

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16'')	white/black		19273
	black/white	510 00	19285
Gravoply™ 2	white/black	610 x 20 mm (24 x 0.79'')	19289
1.5 mm (1/16") with adhesive back	red/white		19293
	blue/white		19297

# **STRIPS 610 X 30 MM**

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16'') with adhesive back	black/white		19286
	white/black	610 x 30 mm (24 x 1.18")	19290
	red/white		19294
	blue/white		19298



# Labels for electrical items

Unitary identification of a device, inside or outside the electrical cabinet. Packaged by 50 units.



# LABELS 50 X 15 MM

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2	black/white	50 x 15 mm	19251
1.5 mm (1/16") with adhesive back	white/black	(1.97 × 0.59'')	19252

# LABELS 60 X 15 MM

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16") with adhesive back	black/white	60 x 15 mm	19255
	white/black	(2.36 x 0.59'')	19256

# LABELS 60 X 20 MM

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16") with adhesive back	black/white	60 x 20 mm	19259
	white/black	(2.36 x 0.79'')	19260

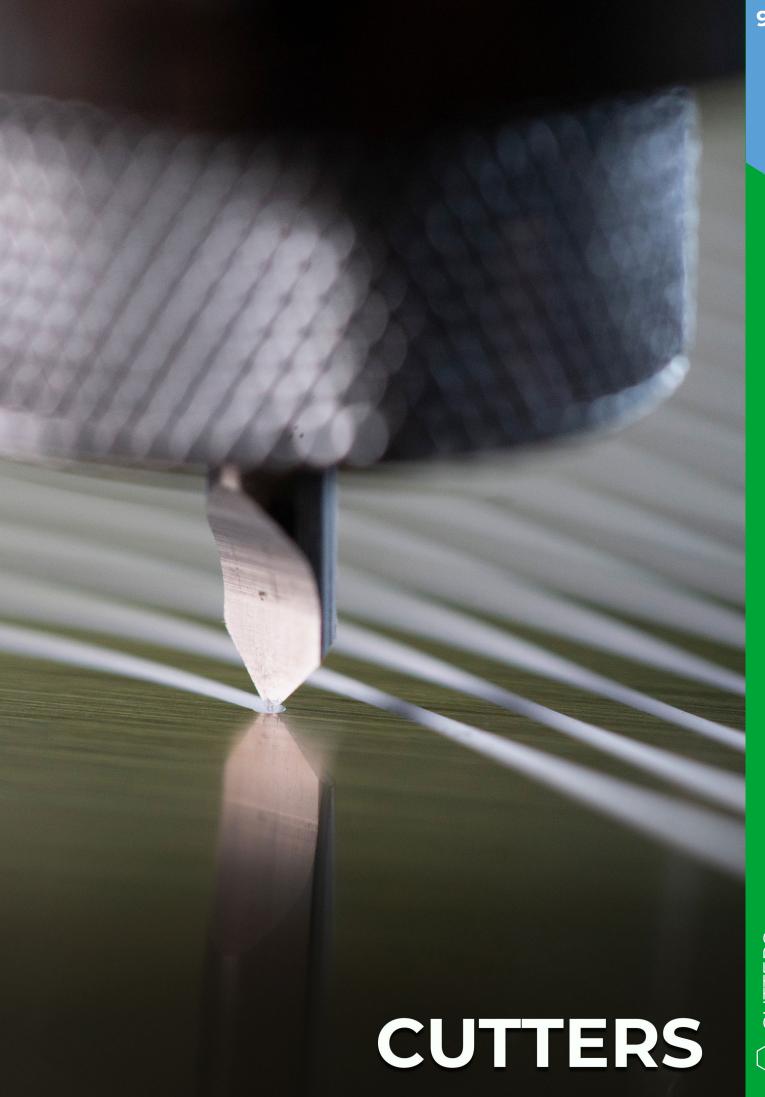
# LABELS 80 X 40 MM

Gravotech material	Colour	Dimensions	Ref.
Gravoply™ 2 1.5 mm (1/16") with adhesive back	black/white	80 x 40 mm	19263
	white/black	(3.15 x 1.57'')	19264









# Gravotech cutters: engraving & cutting

# **TWINCUT SOLUTION**

# **COMPOSE YOUR TOOL**



The Twincut interchangeable cutters are designed to be used with a single tool holder.

Twincut has a wide range of inserts (carbide cutters) that covers all cutting and engraving applications, in plastic and metal, including stainless steel engraving and precious metal cutting.

Save up to 30% of your total rotary engraving tool cost.

# **ONECUT**



# Efficient and convenient

Most standard cutters are available with either a HSS (High Speed Steel) shaft or a micrograin carbide shaft.

# **PERCUT**



# Productivity and endurance

Short tools for demanding machining applications requiring a collet or high-speed spindle.

# **DIAMONDS**



# Delicacy and precision

For scribing or dot marking metals and glass. Rotating or tracing diamonds are available in the Onecut and Twincut ranges.

### FIND THE RIGHT RANGE FOR YOUR MACHINE

	Engraving / Cutting / Drilling	Scribing (Diamond dragging)
M10	N/A	Twincut
M20 / IM3	Onecut	3.17 mm
M20 V3 M40 IS200	Twincut Onecut 4.36 mm	Twincut Onecut 4.36 mm
IS400	Twincut (with collet or high frequency spindles) Onecut 4.36 mm Onecut 6.35 mm Percut (with collet or high frequency spindles)	Twincut (with collet or high frequency spindles) Onecut 4.36 mm Onecut 6.35 mm (with collet spindle)
ISx000	Twincut (with collet or high frequency spindles) Onecut 6.35 mm Percut (with collet or high frequency spindles)	Onecut 6.35 mm (with collet spindle) Twincut (with collet or high frequency spindles)



# FIND THE RIGHT SHAPE FOR YOUR WORK

	Engraving	Cutting	Drilling	Scribing (Diamond dragging)
Twincut	Conical Conical double cone Flat end cylindrical 1/4 Rounded cylindrical Round end cylindrical	Single lip Double lips	Drilling	Faceted rotative 120° Conical non-rotative 126.5°
Onecut 3.17 mm	Conical Flat end cylindrical Round end cylindrical	N	/A	Faceted rotative 90° Faceted rotative 110° Conical non-rotative 126.5° Diamond insert non- rotative
Onecut 4.36 mm	Conical Flat end cylindrical 1/4 Rounded cylindrical Round end cylindrical	Helical	Helical (braille)	Faceted rotative 110° Faceted rotative 120° Faceted rotative 126.5° Conical non-rotative 130° Diamond ball
Onecut 6.35 mm	Conical	N/A		Conical non-rotative 130°
Percut 3.00 mm	3/4 Conical	Conical helical Single lip Double lips Triple lips		
Percut 4.00 mm	Conical with double recess	Single lip Double lips Triple lips		N/A
Percut 6.00 mm	Conical with double recess	Conical helical Single lip Double lips Triple lips Four lips		



# Conical 22.5°

Solid carbide cutting profile for signage and personalization engraving on plastics and non ferrous metals.

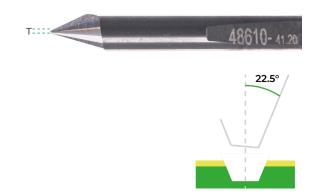
Т	inch	mm	Ref.
	carl	oide	
_	0.010"	0.25	48608
_	0.013"	0.32	48609
_	0.020"	0.50	48610
	0.030''	0.75	48611
	0.040''	1.00	48612
	0.050"	1.25	48613
	0.060"	1.50	48614
	0.069"	1.75	48615
	0.080"	2.00	48616
	0.100"	2.50	48617
	0.120"	3.00	48618

# Recommended for

Phenolic, aluminium, brass

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# Conical 30.0°

Solid carbide sharpening profile for jewellery personalization applications: gold, silver and nickeled metals. Made of carbide grade medium grain size very hard with excellent wear resistance.

Т	inch	mm	Ref.		
	carbide				
_	0.010"	0.25	50135		
_	0.013"	0.32	50136		
_	0.020''	0.50	50137		
_	0.030''	0.75	50138		

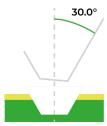
# Recommended for

Gold, silver

### Suitable for

Aluminium, brass and nickeled metal





# Conical 35.0°

Solid carbide cutting profile for marking & identification on ferrous metals (copper, steel and stainless steel). Cutting angle is ideal to engrave multi and simple lines font characters.

Т	inch	mm	Ref.
	carl	oide	
_	0.010"	0.25	48629
_	0.013"	0.32	48630
_	0.020''	0.50	48631
_	0.030''	0.75	48632
	0.040''	1.00	48633
	0.050"	1.25	48634
	0.060"	1.50	48635

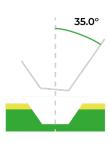
# Recommended for

Steel, stainless steel and copper

# Suitable for

Aluminium, brass and nickeled metal







# Conical 15.0°

Sharpening profile designed for Recommended for plastics & non ferrous metal. Ideal for finishing, bevelling, thin caracteres engraving and jewellery cutting.

Т	inch	mm	Ref.	
carbide				
	0.013''	0.32	48713	

Aluminium, brass, gold, silver

### Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# Conical 45.0°

Solid carbide sharpening profile designed for plastics & non ferrous metals for finishing and bevelling.

Suitable for engraving job using Intaglio.

T	inch	mm	Ref.
	carl	oide	
_	0.013''	0.32	48925
		45.0°	
		$\overline{}$	
		_/	

# Recommended for

Aluminium, brass, phenolic

### Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# 1/4 rounded conical

15.0°

Sharpening profile specifically designed for marking applications into ferrous metals (copper, steel and stainless steel). This cutter is suitable for all characters fonts.

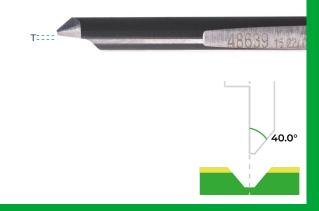
Т	inch	mm	Ref.
	carl	bide	
_	0.010"	0.25	48636
_	0.013''	0.32	48637
_	0.020"	0.50	48638
_	0.030''	0.75	48639
	0.040''	1.00	48640
	0.050''	1.25	48641
	0.060"	1.50	48642
	0.069''	1.75	48643
	0.080"	2.00	48644

### Recommended for

Copper, steel, stainless steel

### Suitable for

Acrylics, aluminium, brass and nickeled metal



# Conical double cone

Profile designed for identification on hard metals like copper, steel and stainless steel. Profile produces a cut suitable for single line font characters.

Т	inch	mm	Ref.
	carl	bide	
	0.010"	0.25	48645
	0.013"	0.32	46646
	0.020"	0.50	44647
	0.030''	0.75	42648
	0.040''	1.00	40649
	0.050"	1.25	38650

# Recommended for

Copper, cast iron, steel, stainless steel

# Suitable for

Acrylics, aluminium, brass





# **104 TWINCUT**

# Flat end cylindrical

Sharpening profile specifically designed for large characters and logos engraving. Also suitable for cutting with straight edges.

Т	inch	mm	Ref.	
carbide				
	0.040''	1.00	48619	
	0.060"	1.50	48620	
	0.080"	2.00	48621	
	0.100"	2.50	48622	
	0.120''	3.00	48623	

# Recommended for

Phenolic, aluminium, brass

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# Round end cylindrical

Sharpening profile produces a round print, ideal for 3D profile as well as hollow. Mainly used for acrylics reverse engraving, when grooves are colour-filled.

Т	inch	mm	Ref.
	carl	oide	
	0.040''	1.00	48624
	0.060"	1.50	48625
	0.080"	2.00	48626
	0.100"	2.50	48627
	0.120''	3.00	48628

# Recommended for

Acrylic

# Suitable for

Aluminium, brass



# Drilling

Solid carbide double lip upward spiral profile designed for drilling plastics and non ferrous metals. Ideal with Gravostyle drilling function into CAM Module.

Т	inch	mm	Ref.			
	carbide					
_	0.020"	0.50	48661			
	0.030"	0.75	48682			
	0.040''	1.00	48683			
	0.047"	1.20	48684			
	0.055"	1.40	48685			
	0.060"	1.50	48686			
	0.080"	2.00	48687			
	0.100"	2.50	48688			

# Recommended for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic





# Single lip

Solid carbide single lip upward spiral. Designed for cutting with straight edges, as well as finishing on aluminium, plastics, composites, laminates and non ferrous metals.

Т	inch	mm	Ref.	
carbide				
	0.030''	0.75	48653	
	0.040''	1.00	48654	
	0.080"	2.00	48655	
	0.100"	2.50	48656	

# Recommended for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# Double lips

Solid carbide double lips upward spiral. Specifically designed for cutting with straight, as well as finishing on aluminium, plastics, composites & laminates.

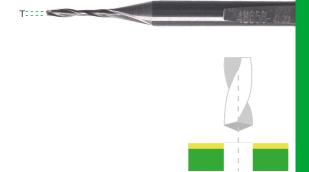
Т	inch	mm	Ref.
	carl	bide	
_	0.030''	0.75	48657
	0.040''	1.00	48658
	0.080"	2.00	48659
	0.100"	2.50	48660

### Recommended for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)

### Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



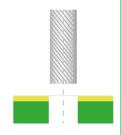
# Multilips

Multilips profile specifically designed for engraving & milling operations Recommended for into Epoxy resin of Printed Circuit Board (PCB) but also suitable for others resins.

Т	inch	mm	Ref.	
carbide				
	0.040"	1.00	48651	
	0.080"	2.00	48652	

Phenolic, epoxy







# Conical 22.5°

HSS or Solid carbide cutting profile designed for signage and personalisation engraving into plastics and non ferrous metal materials.

Т	inch	mm	Ref.
	carl	oide	
	0.010"	0.25	48793
_	0.013''	0.32	48794
_	0.020''	0.50	48795
_	0.030''	0.75	48796
	0.040''	1.00	48797
	0.050"	1.25	48798
	0.060"	1.50	48799
	0.080"	2.00	48800
	0.120"	3.00	48801

Т	inch	mm	Ref.
	HSS	steel	
	0.004"	0.10	48773
_	0.010''	0.25	48774
_	0.013''	0.32	48775
_	0.020"	0.50	48776
_	0.030"	0.75	48777
	0.040"	1.00	48778
	0.050"	1.25	48779
	0.060"	1.50	48780
	0.080"	2.00	48781

### Recommended for

Gold, silver & phenolic for carbide

### Suitable for

 ${\sf Gravoply^{TM}}, {\sf Metallex^{TM}}, {\sf Gravoglas^{TM}}, {\sf Acrylic}, \ {\sf aluminium}, \ {\sf brass}$ 



# Conical 37.0°

HSS sharpening profile designed for plastics & non ferrous metals. Ideal for finishing, bevelling, cutting and thin character engraving.

Т	inch	mm	Ref.	
HSS steel				
	0.013"	0.32	20171	

# Recommended for

 $\label{eq:polymorphism} \mbox{Polypropylen(PP or PPI) toothbruch handle or others grades of floppy plastic}$ 

# Suitable for

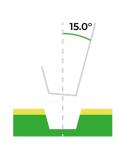
 $\mathsf{Gravoply}^{\mathsf{TM}}, \mathsf{Metallex}^{\mathsf{TM}}, \mathsf{Gravoglas}^{\mathsf{TM}}, \mathsf{Acrylic}$ 



# Conical 15.0°

HSS (High Speed Steel) sharpening profile specifically designed for toothbrush plastic handle personalisation.
Also suitable for other soft plastic materials.

Т	inch	mm	Ref.
	HSS	steel	
_	0.010"	0.25	48802



# Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylic

### Suitable for

Gold, silver, aluminium, brass

# Conical 45.0°

Solid carbide profile designed for plastics & non ferrous metals for finishing and bevelling. Excellent wear resistance.

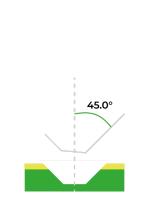
Т	inch	mm	Ref.	
carbide				
_	0.010"	0.25	51368	

# Recommended for

Phenolic, Gravoply™, Metallex™, Gravoglas™, Acrylic

### Suitable for

Gold, silver, aluminium, brass







# Flat end cylindrical

HSS or solid carbide cutting profile, suitable for most applications. This tool produces flat bottom and a straight edge cut.

Т	inch	mm	Ref.		
	carbide				
	0.120''	3.00	51372		
	HSS steel				
	0.040''	1.00	48783		
	0.080"	2.00	48785		
	0.120''	3.00	48787		

# Recommended for

Gold, silver, aluminium, brass, phenolic for carbide

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic, gold, silver, aluminium, brass



# Round end cylindrical

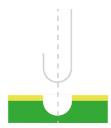
Sharpening profile produce a round print, ideal for 3D profile as well as hollow. Mainly used for acrylics reverse engraving, when grooves are colour-filled.

Т	inch	mm	Ref.
	HSS	steel	
	0.040"	1.00	48788
	0.060"	1.50	48789
	0.080"	2.00	48790
	0.120''	3.00	48792

### Recommended for

Gravoglas™, Acrylic





# Ready to grind

Semi-finished cutter exclusively in carbide, to be sharpened. Can be made for technical jobs requiring specific profile.

Tool length	Cutting length	Ref.
105 mm (4.134'')	13.00 mm (0.511'')	30046
50 mm (1.968'')	13.00 mm (0.511")	73011



# Conical 22.5°

HSS or solid carbide cutting profile designed for signage and personalisation engraving into plastics and non ferrous metals.

Т	inch	mm	Ref.		
carbide					
	0.004"	0.10	48820		
	0.010"	0.25	48821		
	0.013''	0.32	48822		
_	0.020"	0.50	48823		
	0.030''	0.75	48824		
	0.040"	1.00	48825		
	0.050"	1.25	48826		
	0.060"	1.50	48827		
	0.080"	2.00	48828		
	0.120"	3.00	48829		

Т	inch	mm	Ref.		
	HSS steel				
	0.004"	0.10	48808		
_	0.010''	0.25	48809		
_	0.013''	0.32	48810		
_	0.020''	0.50	48811		
_	0.030"	0.75	48812		
	0.040"	1.00	48813		
	0.050"	1.25	48814		
	0.060''	1.50	48815		
	0.080"	2.00	48816		
	0.120"	3.00	48818		

### Recommended for

Gold, silver, aluminium, brass, phenolic for carbide cutter

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic, gold, silver, aluminium, brass

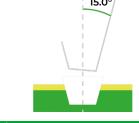


# Conical 15.0°

Sharpening profile designed for plastics & non ferrous metals. Ideal for finishing, bevelling, thin caracteres engraving and jewellery cutting.

T	inch	mm	Ref.	
HSS steel				
	0.010"	0.25	48830	





# Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylic

### Suitable for

Gold, silver, aluminium, brass



# Conical 45.0°

Solid carbide sharpening profile designed for plastics & non ferrous metals for finishing and bevelling. Suitable for

engraving job using Intaglio.

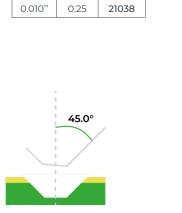
Т	inch	mm	Ref.
	cark	oide	
_	0.010"	0.25	21038

# Recommended for

Gold/silver, aluminium, brass, phenolic

### Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# 1/4 rounded conical

Solid carbide profile designed for marking & identification on ferrous metals (copper, steel and stainless steel). Cutting angle suitable for multi-lines font.

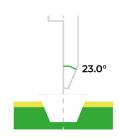
Т	inch	mm	Ref.	
carbide				
_	0.013"	0.32	51373	
_	0.020"	0.50	51374	
	0.030''	0.75	51375	
	0.050"	1.25	51376	

# Recommended for

Copper, stainless steel & steel

# Suitable for

Acrylic, anodized aluminium





# Flat end cylindrical

Cutting profile in HSS designed for most applications on plastics and non ferrous metals. This tool will produce flat bottom, also suitable for straight edge cutting.

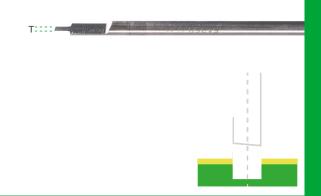
Т	inch	mm	Ref.
	HSS	steel	
	0.040''	1.00	51355
	0.060"	1.50	51356
	0.080"	2.00	51358
	0.100"	2.50	51359
	0.120''	3.00	51360
	0.160"	4.00	48834

# Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylic

# Suitable for

Gold, silver, aluminium, brass



# Round end cylindrical

This cutter profil in HSS (High Speed Steel) creates a round print, ideal for 3D profile as well as hollow. Mainly used for acrylic reverse engraving, when grooves are colour-filled.

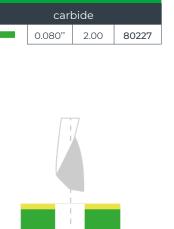
Т	inch	mm	Ref.
	HSS	steel	
	0.040"	1.00	51362
	0.060"	1.50	51363
	0.080"	2.00	51364
	0.100"	2.50	51365
	0.120''	3.00	51366
	0.140"	3.50	51367

# Recommended for

Gravoglas™, Acrylic



# Helical 1 lip helical profile specifically designed for regular cutting and milling in ABS, acrylics, aluminium/brass and laminated.

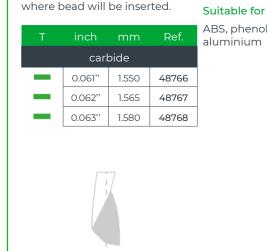


### Recommended for

Aluminium, brass and laminated

### Suitable for

ABS, acrylics



Helical (Braille)

carbide dedicated to the

Helical cutters made of solid

drilling process of ADA Signage

# Recommended for

# Acrylics

ABS, phenolic, anodized aluminium





# ONECUT 4.36 MM

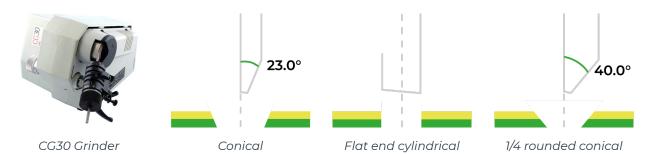
# Ready to grind

Semi-finished cutter exclusively in carbide, needs to be sharpened to match any profile, for technical jobs.

Tool length	Cutting length	Ref.
160 mm (6.299'')	13.00 mm (0.511")	28082
50 mm (1.968'')	13.00 mm (0.511")	73012

# **GRINDER**

CG30 grinder allows to resharpen your engraving and cutting tools. It achieves a variety of shapes (see below) with an exceptional precision and quality. Collets not included.



Dimensions (L x W x H)	Noise	Power	Key features	Ref.
			EU plug	22797
	≤ 70 dB	90 W	UK plug	22798
360 x 300 x 212 mm (14.17 x 11.81 x 8.35")			US plug	20906
			Swiss plug	22799
			Japan plug	22800



# Conical 23.0°

Solid carbide cutting profile designed for signage and personalisation engraving into plastics and non ferrous metals.

Т	inch	mm	Ref.			
carbide						
_	0.013''	0.32	48836			
_	0.020''	0.50	48837			
_	0.030''	0.75	48838			
	0.050''	1.25	48839			
	0.080"	2.00	48840			
	0.125"	3.17	48841			
	0.236"	6.00	48842			

# Recommended for

Phenolic

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic, gold, silver, aluminium, brass



### Conical 45.0° Flat end cylindrical Solid carbide sharpening Recommended for Solid carbide cutting profile Recommended for made for the B6 beveller profile designed for plastics & Phenolic Phenolic non ferrous metals for finishing machine. and bevelling. Excellent wear Suitable for Suitable for resistance. Gravoply™, Metallex™, Gravoglas™, Acrylic, gold, silver, Gravoply™, Metallex™, Gravoglas™, Acrylic, aluminium, carbide Ref. aluminium, brass 0.236" 6.00 48847 carbide 0.004" 0.10 48846 45.0°

# Ready to grind

Semi-finished cutter exclusively in carbide designed for the sharpening system owners who need to engrave technical jobs where precise cotation has to be respected, imposing you to create the perfect tool according to the technical requests.

Tool length	Cutting length	Ref.
50 mm (1.968'')	16.00 mm (0.630'')	73013





# PERCUT 3.00 MM

# 3/4 conical

3/4 conical cutter designed for industrial identification or jewellery customisation. Thanks to its revolutionary technical design, this type of cutter is very effective for fine marking and shows a high level of wear resistance.

Т	inch	mm	Tool length	Ref.
		carb	ide	
	0.002"	0.05	38 mm (1.496'')	70613
_	0.005"	0.15	38 mm (1.496'')	70612

### Recommended for

Steel (highly allied or not), stainless steel, cast iron and these alloy, copper and these alloy, gold & silver

### Suitable for

Aluminium, plastics, graphits



# Conical helical

Solid carbide upward spiral developed for deep engraving of soft materials. Standard cutting profile produces a 30° cut into plastics and non ferrous metals.

Т	inch	mm	Tool length	Ref.
		carb	oide	
	0.005"	0.15	38 mm (1.260'')	23077

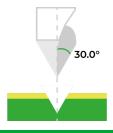
### Recommended for

Aluminium, brass

### Suitable for

 ${\sf Gravoply^{TM}}, {\sf Metallex^{TM}}, {\sf Gravoglas^{TM}}, {\sf Acrylic}, {\sf phenolic}, \\ {\sf gold}, {\sf silver}$ 





# Single lip (plastics)

Solid carbide single lip upward spiral specifically designed for cutting and milling into plastics and Stratified (HPL) with straight edge finishing.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.040"	1.00	39 mm (1.535'')	4.00 mm (0.160'')	48736
	0.080"	2.00	39 mm (1.535'')	8.00 mm (0.315")	48737
	0.120"	3.00	39 mm (1.535'')	10.00 mm (0.400'')	48738

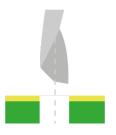
# Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylics

# Suitable for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)







# Single lip (metals)

Solid carbide single lip upward spiral specifically designed for cutting and milling metals with straight edge finishing.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.040''	1.00	38 mm (1.496'')	3.00 mm (0.120'')	48739
	0.080"	2.00	38 mm (1.496'')	5.00 mm (0.197'')	48740
	0.120''	3.00	50 mm (1.968'')	8.00 mm (0.315'')	48741

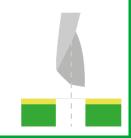
# Recommended for

Aluminium, brass

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic





# Double lips

Solid carbide double lips upward spiral for cutting and milling into plastics & non ferrous metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
_	0.040"	1.00	38 mm (1.496'')	2.00 mm (0.080'')	48752
-	0.060"	1.50	38 mm (1.496'')	3.00 mm (0.120'')	48753
	0.080"	2.00	38 mm (1.496")	4.00 mm (0.160'')	48755
	0.120"	3.00	38 mm (1.496'')	6.00 mm (0.236'')	48769
	0.077"	1.95	38 mm (1.496")	1.95 mm (0.077'')	80341

### Recommended for

Aluminium for all references excepted Ref. 80341 which is specialised for brass & copper and their alloys.

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic



# Triple lips (alu/brass)

Solid carbide triple lips upward spiral for cutting and milling into aluminium & alloys with straight edges.

# Recommended for Suitable for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)

Gravoply™, Metallex™, Gravoglas™, Acrylic

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	38 mm (1.496'')	4.00 mm (0.160'')	70611



# Triple lips (steel)

Solid carbide triple lips upward spiral for cutting and milling into aluminium & alloys with straight edges.

Recommended for Suitable for
Steel, stainless steel Aluminium, brass

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	32 mm (1.260'')	6.00 mm (0.236'')	23080
	X				





# PERCUT 4.00 MM

# Conical with double recess

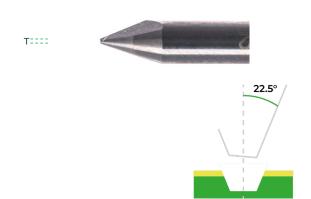
Profile designed for most plastics & non ferrous metals. Recommended Recommended for for signage and personalisation with a cutting angle of 22.5°.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
_	0.010''	0.25	50 mm (1.968'')	6.00 mm (0.236'')	48757
_	0.013"	0.32	50 mm (1.968'')	6.00 mm (0.236'')	48758
_	0.020"	0.50	50 mm (1.968'')	6.00 mm (0.236'')	48759
_	0.030"	0.75	50 mm (1.968'')	6.00 mm (0.236'')	48760
-	0.050"	1.25	50 mm (1.968'')	6.00 mm (0.236")	48761

Gravoply™, Metallex™, Gravoglas™, Acrylic, phenolic

# Suitable for

Aluminium, brass, gold, silver



# Single lip (plastics)

Solid carbide single lip upward spiral for cutting and milling into plastics with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	38 mm (1.496'')	8.00 mm (0.315")	48742
	0.120''	3.00	38 mm (1.496'')	10.00 mm (0.400'')	48743
	0.160"	4.00	50 mm (1.968'')	20.00 mm (0.800'')	48744

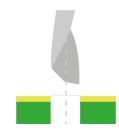
### Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylic

# Suitable for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)





# Single lip (metals)

Solid carbide single lip upward spiral or cutting and milling into non ferrous metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080''	2.00	38 mm (1.496'')	3.00 mm (0.120'')	48745
	0.120"	3.00	38 mm (1.496'')	6.00 mm (0.236'')	48746
	0.160"	4.00	50 mm (1.968'')	9.00 mm (0.354")	48747

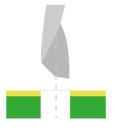
# Recommended for

Aluminium, brass

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic







# Double lips (plastics)

Solid carbide double lips upward spiral for cutting and milling into plastics & non ferrous metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.160''	4.00	50 mm (1.968'')	12.00 mm (0.472'')	23072

# Recommended for

 ${\sf Gravoply^{TM}, Metallex^{TM}, Gravoglas^{TM}, Acrylic \ and \ other \ composites \ as \ HPL}$ 

# Suitable for

Aluminium, brass and others aluminium derived products (ACM)



# Double lips (metals)

Solid carbide double lips upward spiral for cutting and milling into non ferrous metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	38 mm (1.496'')	4.00 mm (0.160'')	48770
	0.120''	3.00	38 mm (1.496'')	14.00 mm (0.551")	48771
	0.160''	4.00	50 mm (1.968'')	16.00 mm (0.630'')	23073

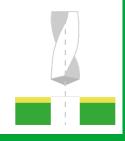
### Recommended for

Aluminium, brass and other aluminium derived products (ACM)

# Suitable for

Gravoply™, Metallex™, Gravoglas™, Acrylic and other composites as HPL





# Triple lips

Solid carbide triple lips upward spiral for cutting and milling into aluminium & brass with straight edges.

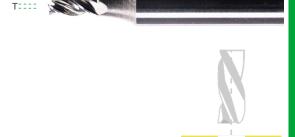
Т	inch mm		Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	25 mm (0.984'')	4.00 mm (0.160'')	23079

# Recommended for

Aluminium

# Suitable for

Brass





# PERCUT 6.00 MM

# Conical helical

Solid carbide upward spiral for deep engraving of soft materials. Standard cutting profile produces a  $30^{\circ}$  cut into plastics and non ferrous metals.

Т	inch	mm	Tool length	Ref.			
carbide							
	0.005"	0.15	57 mm (2.244'')	23091			

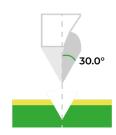
# Recommended for

Aluminium, brass

### Suitable for

 ${\sf Gravoply^{TM}, Metallex^{TM}, Gravoglas^{TM}, Acrylic, phenolic, gold, silver}$ 





# Conical with double recess

Profile designed for most plastics & non ferrous metals, signage and personalisation.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.013"	0.32	57 mm (2.244'')	8.00 mm (0.315")	48762
_	0.020"	0.50	57 mm (2.244'')	8.00 mm (0.315")	48763
	0.050"	1.25	57 mm (2.244'')	8.00 mm (0.315")	48765

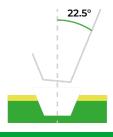
### Recommended for

Phenolic, Gravoply $^{\text{TM}}$ , Metallex $^{\text{TM}}$ , Gravoglas $^{\text{TM}}$ , Acrylic, aluminium, brass

# Suitable for

Aluminium, brass, gold, silver





# Single lip

Solid carbide single lip upward spiral for cutting and milling into plastics & non ferrous metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	50 mm (1.968'')	7.00 mm (0.275")	48748
	0.120"	3.00	50 mm (1.968'')	10.00 mm (0.400'')	48749
	0.160"	4.00	50 mm (1.968'')	12.00 mm (0.472'')	48750
	0.236"	6.00	50 mm (1.968'')	15.00 mm (0.590'')	48751

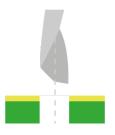
# Recommended for

Gravoply™, Metallex™, Gravoglas™, Acrylic

# Suitable for

Aluminium, brass or ACM (Aluminium composite), HPL panels (High Pressure Laminate)







# Double lips

Solid carbide double lips upward spiral for cutting and milling into non ferrous metals & plastics with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	50 mm (1.968'')	6.00 mm (0.236'')	48772
	0.120"	3.00	50 mm (1.968'')	6.00 mm (0.236'')	70610
	0.160''	4.00	50 mm (1.968")	8.00 mm (0.315'')	70614

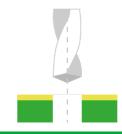
# Recommended for

Aluminium, brass and other aluminium derived products (ACM)

# Suitable for

 $\mathsf{Gravoply^{TM}},\,\mathsf{Metallex^{TM}},\,\mathsf{Gravoglas^{TM}},\,\mathsf{Acrylic}\,\,\mathsf{and}\,\,\mathsf{other}$ composites as HPL





# Triple lips

Solid carbide triple lips upward spiral for cutting and milling into ferrous Recommended for metals with straight edges.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	50 mm (1.968'')	4.00 mm (0.160'')	71765
	0.120''	3.00	50 mm (1.968'')	6.00 mm (0.236'')	71766
	0.160''	4.00	50 mm (1.968'')	8.00 mm (0.315'')	71761

Steel, stainless steel and other ferrous metals

### Suitable for

Aluminium, brass





# Four lips

Solid carbide four lips upward spiral for cutting and milling into ferrous metals with straight edge.

Т	inch	mm	Tool length	Cutting length	Ref.
			carbide		
	0.080"	2.00	50 mm (1.968'')	4.00 mm (0.160'')	71768
	0.120''	3.00	50 mm (1.968'')	8.00 mm (0.315'')	71769
	0.160''	4.00	50 mm (1.968'')	11.00 mm (0.433'')	71770

# Recommended for

Steel, stainless steel







# **DIAMONDS**

# Conical rotative 90°

Onecut 3.17 mm

Mostly used for engraving delicate materials such as platinum, gold, silver as well as glass and more.

Recommended for

Suitable for

Gold, silver, aluminium, brass

Glass, mirror, steel, stainless steel

Rotating diamond:

 $\bigcirc$ 

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.004"	0.10	106 mm (4.173'')	20149

### Faceted rotative 110°

Onecut 3.17 mm

Dedicated to glass and crystal bottles engraving, this 110° faceted rotative diamond cutter is widely used for personalising perfume bottles with paint or wax filling afterwards.

Recommended for

Suitable for

Glass, crystal

Mirror

Rotating diamond:

 $\bigcup$ 

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.005"	0.127	106 mm (4.173'')	52163
	0.010''	0.254	106 mm (4.173'')	52183

# Conical non-rotative 126.5°

### Onecut 317 mm

Designed for thin engraving on the most delicate materials such as glass, platinum, gold, silver, brass and more.

Recommended for

Suitable for

Gold, silver

Aluminium, brass, glass, mirror

# Rotating diamond:



Designed for Feather Touch use

т	inch	mm	Tool length	Ref.
	0.004"	0.10	106 mm (4.173'')	33954

# Diamond insert non-rotative

### Onecut 317 mm

Diamond insert dedicated to jewelery and gift personalization.

Recommended for

Suitable for

Gold, silver, aluminium, brass

Glass, mirror, steel, stainless

steel

# Rotating diamond:



NOT designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
_	0.004"	0.10	7 mm (0.275")	28187
	0.004"	0.10	21.5 mm (1.000'')	33827



### Faceted rotative 110°

### Onecut 4.36 mm

Faceted diamond cutters are used for glass engraving to a certain depth and for fine detailed lines. A swivel nose cone is recommended to ensure a constant depth.

Recommended for

Suitable for

Glass, mirror, aluminium, brass

Steel, stainless steel

# Rotating diamond:



Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
_	0.010''	0.254	160 mm (6.299")	34122
_	0.015"	0.38	160 mm (6.299")	34123
_	0.030''	0.78	160 mm (6.299'')	34124
_	0.010"	0.254	130 mm (5.118'')	77659
	And the second second			5

# Faceted rotative 120°

# Onecut 4.36 mm

Mostly used on glass and crystal to produce artistic engravings, also suitable to personalise non ferrous metals.

Recommended for

Suitable for

Glass, crystal, mirror

Aluminium, brass, gold, silver

# Rotating diamond:

 $\bigcup$ 

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.004"	0.10	160 mm (6.299'')	12909
	0.004"	0.10	130 mm (5.118'')	84894



# Faceted rotative 126.5°

### Onecut 4.36 mm

Mostly used for ferrous & non ferrous metal engraving. This 126.5° faceted rotative diamond cutter is mainly dedicated to metallic

gift item personalisation and metallic parts identification.

Recommended for

Suitable for

Aluminium, brass, nickeled, steel, stainless steel

Glass, mirror

Rotating diamond:

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
_	0.020"	0.50	160 mm (6.299'')	34095

# Conical non-rotative 130°

Onecut 4.36 mm

130° conical non rotative diamond cutter is mainly used for gift personalisation and mechanical part identification in aluminium, brass, nickeled metals, steel and stainless steel.

Recommended for

Suitable for

Aluminium, brass, gold, silver

Glass, crystal, steel, stainless

steel

Rotating diamond:

$\sim$	
/)	
_	

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.020''	0.50	160 mm (6.299'')	34094
_	0.020"	0.50	160 mm (6.299'')	84975

Diamond ball

# Onecut 4.36 mm

Diamond round burr dedicated to engraving and carving of granite, stone and glass. This typical cutter needs to operate under permanent water or oil based lubrication.

Recommended for

Suitable for

Granite

Glass, mirror, stone

# Rotating diamond:

$\bigcup$	
Dociano	

Designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.063"	1.60	160 mm (6.299'')	20932
	0.063"	1.60	160 mm (6.299'')	20933

# Conical non-rotative 130°

# Onecut 6.35 mm

Mainly used in gift personalisation and mechanical part identification on precious metals.

Recommended for

Suitable for

Precious, ferrous, non ferrous

metals

Rotating diamond:



NOT designed for Feather Touch use

Т	inch	mm	Tool length	Ref.
	0.004"	0.10	178 mm (7.000'')	34261

Glass, crystal, mirror

# Faceted rotative 120°

120° faceted diamond insert of the Twincut family, dedicated to engraving a wide variety of ferrous and non-ferrous metals, glass & more. Twincut diamond insert removes material when it rotates.

### Recommended for

Aluminium, brass, nickeled metals

### Suitable for

Steel, stainless steel, glass

Rotating diamond:

Т	T inch r		Tool length	Ref.
	0.004"	0.10	15 mm (0.590'')	23060

# Conical non-rotative 126.5°

126.5° conical diamond insert of the Twincut family, dedicated to engraving a wide variety of ferrous and non-ferrous metals, glass and crystal, mirrors and more. Diamond dragging works by repelling material when engraver rotation is off.

# Recommended for

Gold/silver

Suitable for

Aluminium, brass, steel, stainless steel

Rotating diamond:

Т	inch	mm	Tool length	Ref.
	0.004"	0.10	15 mm (0.590'')	23061







# Stylus for test prior to engraving

# **ASSEMBLED STYLUS BIT**

Unit - 1 unit

Ref. 21679

Intended for a final check before engraving, the assembled stylus bit replaces the cutter and fits into the top-loading spindle. This stylus can easily be refilled when empty.

# **CROSS STYLUS REFILL**

Unit - 1 unit

Ref. 12374

Cross stylus refill is delivered as spare part for assembled stylus bit. Easy to change thanks to the removable cap and spring. Take out the worn refill and proceed to the replacement.

# Twincut starter kits

# **TOOL HOLDER**

Tool holder is a central part of the Twincut concept called "non-active part".

It holds the engraving insert, the "active part".

This tool holder has been coated to avoid scratches and

	Packaging type	Ref.
M20 V3/M40 L = 120 mm		69729
IS series, L = 150 mm	Box - 1 unit	22987

# **EJECTOR**

Use the ejector to remove the cutter from the tool holder.



	Packaging type	Ref.
M20 V3/M40	Lipit Tupit	69727
IS series	Unit - 1 unit	69724











### **KNOB KEY**

Unit - 1 unit

Ref. 10016

The cutter knob key is an indispensable tool for installing and disassembling the cutter from any rotary engraver. This tool allows you to unscrew the cutter's knob screw that holds the cutter in the spindle.

# **CUTTER KNOB**

Unit - 1 unit

Ref. 12335

The cutter knob connects the cutter shank to the spindle so that it becomes a single entity. This assembly allows the tool to be fixed at the end of the Z-reference's setting and to maintain it during the engraving process.

# STEEL BLOCK

Unit - 1 unit

Ref. 13798

The steel block serves as an anvil, used in the assembly process of the Twincut insert. Just strike the base of the cutter shaft when inserting the cutter to secure it.

# **BRUSH**

Unit - 1 unit

Ref. 11791

Use the brush to sweep away chips or dust that may still be present at the end of the engraving process.

# M20 V3, M40 & IS ENGRAVING STARTER KITS

There are 2 Twincut starter kits dedicated to our rotary engravers: M range (M20 v3 & M40) or IS range (IS200, IS400, IS6000, IS7000 & IS8000). These kits brings you the accessories you need to use our Twincut concept and to 2 inserts to start engraving immediately.



	Packaging type	Ref.
M20 v3, M40 Twincut starter kit	Box - 1 unit	69723
IS Twincut starter kit		69722



Watch our videos!

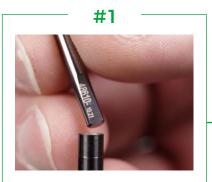


# Discover the Twincut tools with our starter kit

# What's in the kit?



# Moving towards a first engraving: step by step



Place the insert in the tool holder.



Gently tap on the steel block.



Install your tool in the machine.



Adjust your z-axis and tighten with the Allen knob key



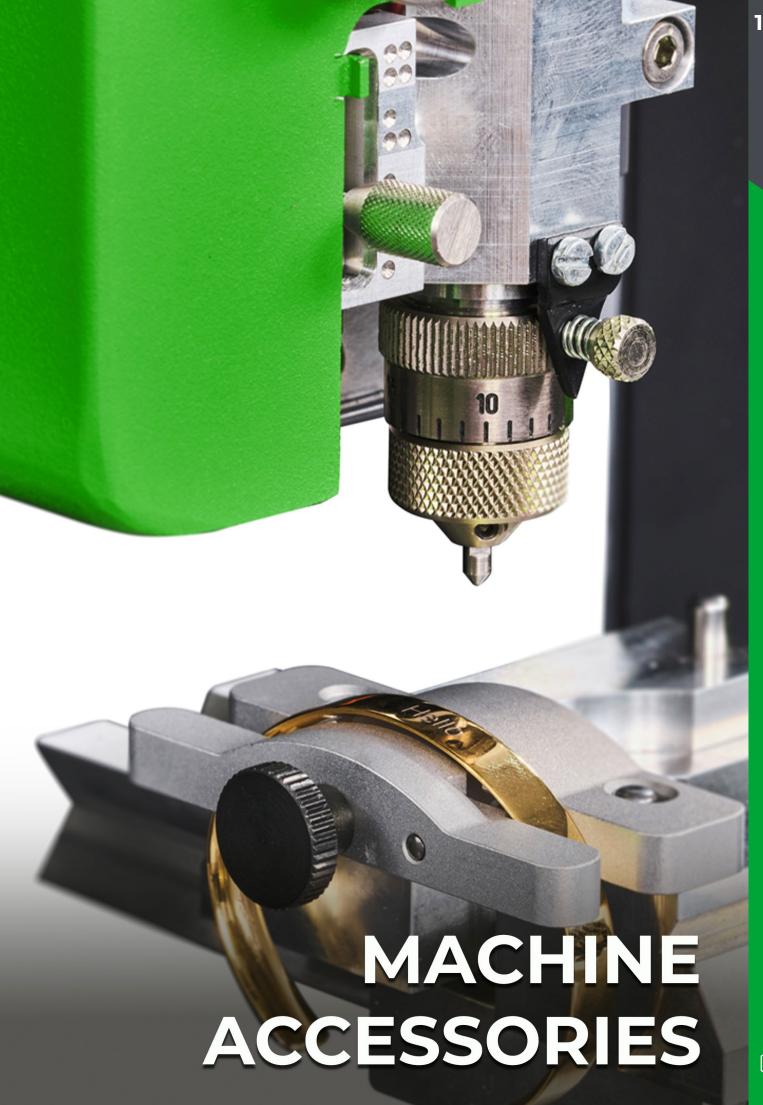
Use the ejector to push the insert out of the tool holder.

Keep the box to store your tools!

# See our video









# CYLINDRICAL ATTACHMENT JIGS

# Jigs for jewel rotary device



STANDARD RING JIGS

Ref. 12500

Machine compatibility: M20 Jewel, M20 v3 Jewel, WeLase™

Pack of 1

Inside use. Designed to fix a ring or a wedding ring topped with a diamond.



PREMIUM RING JIGS

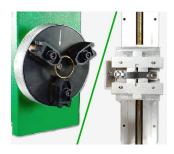
Ref. 49951

Machine compatibility: M20 Jewel, M20 v3 Jewel, WeLase™

Pack of 3

Inside and outside use. Designed for a wide range of round rings, perfect for wedding rings.

# **Dedicated kits**



**JEWEL KIT** Ref. 81993,81993

Machine compatibility: M20 v3 Pen

Includes a chuck for rings up to 27 mm (1.06") diameter and a jewel jig (Ref. 28192).



**PEN KIT** 

Ref. 81377

Machine compatibility: M20 v3 Jewel

Includes pinches for pens and a tailstock.

To engrave any pen of any diameter.



**BOTTLE KIT** 

Ref. 46674

Machine compatibility: M40, M40 DV

Diameter: 38 - 110 mm (1.5 -4.33")

To engrave bottles and cups up to 110 mm (4.33") diameter.



LARGE CYLINDER **CHUCK** 

Ref. 23527

Machine compatibility: IS400 Volume

Diameter: 110 - 350 mm (4.33" - 13.78")

Designed to engrave large cylindrical items up to 350 mm (13.78") diameter.





# **OUTSIDE RING KIT**

Easily and perfectly allows a deep engraving outside of the ring.

Key features	Material	Machine compatibility	Ref.
Includes a ring holder	plastic	M20 v3 Pen	49514
Includes a ring holder and a counterpin	plastic	M20 v3 Jewel	81994



# **CUP KIT**

Engrave cylindrical items up to 80 mm (3.15") diameter i.e. metal cup, drinking glass etc.

Key features	Material	Machine compatibility	Ref.
Includes a chuck and rubber cones.	rubber	M20 v3 Pen	81978
Includes a counterpin and rubber cones	rubber	M20 v3 Jewel	81977

# **FLAT JIGS** Easy clamping



# **UNIVERSAL JIGS**

Ref. 20196

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Sliding pins & lateral stop.

Multiform vice: the most versatile jig to hold any shape.



# GRAVOFOIL™ JIGS

Ref. 22868

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Metallic plate with 2 magnets.

Engrave very flexible materials like Gravofoil™ or Flexilase™.



# **ROUGH CELERON JIGS**

Ref. 10179

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase<sup>TM</sup>

Shape your own jigs.

Jigs to be machined to the desired shape.



# GRAVOGRIP™ TABLES

Double-sided, flexible and naturally adhesive material: no need for clamping, tape nor vacuum

A time saver tool for engraving and cutting jobs on plastic or metallic materials.





Gravogrip™ table M20

Gravogrip™ table M40

	Key features	Machine compatibility	Ref.
Gravogrip™ table M20		M20 v3, M20	70997
. TM       N4/0	mm	14/0 14/0 50/	45697
Gravogrip™ table M40	inch	M40, M40 DV	72182
C : TW	mm	10000	71116
Gravogrip™ table IS200	inch	IS200	73401

# Signage - Electrical



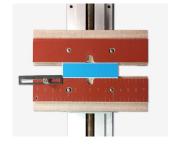
# MEDIUM PLASTIC JIGS

Ref. 27215

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Length: 150 mm (5.9")

For badges, labels or electrical strips.



# MEDIUM CELERON JIGS

Ref. 10165

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Length: 150 mm (5.9") with very precise graduation.

For delicate flat items: labels,



# **ELECTRICAL JIGS**

Ref. 21131

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Length: 240 mm (9.5")

For electrical applications: cable identification, electrical strips. Can hold any long flat items.



# **EXTRA LARGE ALUMINIUM JIGS**

Ref. 20191

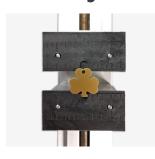
Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Length: 310 mm (12.2")

For large plates (any material). Ideal for professional plate engraving (300 x 200 mm - 11.8 x 7.9").



# **Jewelry**



# **SMALL PLASTIC JIGS**

Def 48091

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Length: 90 mm (3.54")

For small object and jewellery personalisation. Small footprint around the



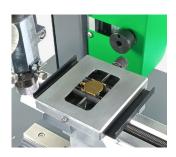
# STANDARD JEWELLERY JIGS

Ref. 28192

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

The protection tray for chains is available in option (Ref. 48074).

Versatile jewellery vice: pendants, curved bangles, adult and baby chain bracelets.



# PREMIUM JEWELLERY **JIGS**

Ref. 22870

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase<sup>TM</sup>

Automatically center the product in X and Y.

The ideal jewellery vice: the best fit with the most versatility.

Perfect positioning for tiny jewels like babies chain bracelets.



# **CHAIN PENDANTS JIGS**

Ref. 77320

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase<sup>TM</sup>

Holes to pass the chain through.

Dedicated to pendants with chains, also works with chain bracelets.



# **WATCHES JIGS**

Ref. 10182

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

For round and rectangular objects, engrave watches and medals without the risk of scratching.



### RIGID BRACELET JIGS

Ref. 77961

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

To install on the right or left of the vice.

For rigid bracelets that cannot be held in standard jigs.



### SIGNET RING JIGS

Ref. 20194

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Includes rubber protection strips.

Easily engrave signet rings without the risk of scratching.



# **CUTTING JIGS**

Ref. 84897

Machine compatibility: M20 v3, M20, M20 Jewel, M20 v3 Jewel, M20 Pen, M20 v3 Pen, WeLase™

Includes 4 holding flanges and 3 martyr plates. Max. plate size: 80 x 120 mm (3.15 x 4.72"), thickness: 8 mm (0.31'').

For cutting thin metal plates.



# Gift and small items



# MEDIUM ALUMINIUM JIGS

Ref. 20189

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLaseTM

I = 150 mm (5.9")

Flat metallic parts and small metallic items. Hold plates firmly.



Ref. 20190

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Screws to set 2 different widths along the jigs.

Designed especially for eyeglass frame. Adjustment for flared temples.



# **PEN JIGS**

Ref. 10169

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

For pen bodies or tubular items.



# **CLIP PEN JIGS**

Ref. 20842

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Specific feature for the pen

Engraving of clip and pen body.



# **COSMETIC JIGS**

Ref. 81152

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Designed to easily clamp perfume bottles and cosmetics.



# SWISS ARMY KNIFE JIGS Ref. 28067

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase™

Designed to engrave the sides of Swiss army knives.





# **Funerary**



# **FUNERARY JIGS**

Ref. 47697

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase<sup>TM</sup>

I = 164 mm (6.5")

Dedicated to funeral applications:

- · Side 1: coffin plate
- · Side 2: funerary inters

# **Tableware**



# SILVERWARE JIGS

Ref. 20129

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Includes stops to adjust length and width.

Dedicated to silverware.



# **TABLEWARE JIGS**

Ref. 22370

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Includes 4 relocatable pins.

Suitable for various tableware item shapes and sizes: plates, silverware, etc.



# **PLATTERS JIGS**

Ref. 20192

Machine compatibility: IM3, M20 v3, M20, M40, IS200, IS400, ISx000, WeLase $^{\text{TM}}$ 

Includes 4 relocatable pins.

For platter or any large flat



# **REGULATING NOSES**

# STANDARD NOSES SMALL FONT

	Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Nose 0.7 mm	For very small fonts	0.25 mm (0.010'')			20130
Nose 1.5 mm	Recommended for Metallex™	0.32 mm (0.013'')	22.5°	IM3, M20 v3, M20, M40, IS200, IS400, ISx000	20131
Nose 2.3 mm	General use	0.75 mm (0.030")			20132

# STANDARD NOSES LARGE FONT

	Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Nose 2.5 mm	For bevelling and medium fonts	0.75 mm (0.030'')	45° - 60°		20936
Nose 4.7 mm	For fonts up to 60 mm (2.36"). Compact for intaglio engraving	3.00 mm (0.120'')		IM3, M20 v3, M20, M40,	12215
Nose 7.0 mm	For large fonts	3.75 mm (0.015")	All tools	IS200, IS400, ISx000	20937
Nose large diameter	For very large fonts or large flat tint on plastic	3.75 mm (0.015'')			20960



	Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Vacuum nose 1.5 mm		0.25-0.75 mm (0.010 - 0.030'')	22.50		21674
Vacuum nose 3.3 mm	For small fonts	0.25-2.5 mm (0.010 - 0.100'')	22.5°	IM3, M20 v3, M20, M40,	21672
Vacuum nose 8 mm	Maximum chip suction. For small fonts	0.25-3 mm (0.010 - 0.118'')	All tools	IS200, IS400, ISx000	21673
Extraction noses kit	Supplied with suction hose and 3 noses: 21674/21672/21673	N/A	N/A		23657

# **CURVED ITEM NOSES**

	Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Vacuum swivel nose 2.5 mm	To follow shapes on glass bottle engraving.	0.75 mm (0.030'')	99.50	IM3, M20 √3, M20, M40,	22464
Vacuum swivel nose 5 mm	glass bottle engraving Rotating or non- rotating diamond.	1.50 mm (0.059'')	22.5°	M20, M40, IS200, IS400, ISx000	13058

# **COLLET SPINDLE NOSES**

	Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Swivel vacuum nose 2.50 mm	To perfectly follow the profile of the part on hard materials.  Small font.	of the part on 0.75 mm d materials. (0.030")		15 (00 15 000	64189
Swivel vacuum nose 5.00 mm	To perfectly follow the profile of the part on hard materials.  Medium font.	1.50 mm (0.059'')	All tools	IS400, ISx000	64188
HF 750 W spindle vacuum nose	Connect directly to the IS chip collector to vacuum chips when using the HF 750 W spindle.	N/A		ISx000	79596



		Key features	Max. truncation	Recommended max. tool cone	Machine compatibility	Ref.
Depth teflon nose 3.0 mm	i i cc	Avoid matting on metallic plates and tags. Small fonts.		22.50		20133
Vacuum swivel teflon nose 3.5 mm		Softer than polished steel nose: less scratch. Small fonts.	0.50-0.75 mm (0.020-0.030'')	22.5°	IM3, M20 v3, M20, M40, IS200, IS400, ISx000	22481
Vacuum swivel teflon nose 5 mm		Softer than polished steel nose: less scratch. Medium fonts.	1.25 mm (0.050")	35.0°		42165
Long vacuum teflon nose 12 mm		Engrave in grooves up to 11 mm (0.43'').	1.75 mm (0.069")	45.0°		28061

# SPECIFIC NOSES

		Key features	Recommended max. tool cone	Machine compatibility	Ref.
Diamond nose		Integrated diamond. Picture engraving by points and scribing.	N/A	IM3, M20 v3, M20, M40, IS200, IS400, ISx000	22884
		Automatize machine Z settings for each character to get the desired	All 4 l	IS200	65413
sensor nose		depth. Small and medium fonts only. Replace the manual Z setting system.	All tools	IS400, ISx000	51310

# **FEATHER TOUCH**

	Key features	Recommended max. tool cone	Machine compatibility	Ref.
Feather Touch 4.36 - M range	Mainly used for glass. Very soft pressure applied by the diamond on the part.		M20 v3, M40	81950
Feather Touch 4.36 - IS range	Avoid nose scratches.	Diamond use mostly	IS200, IS400, ISx000	78465
Feather Touch 3.17	Mainly used for glass. Very soft pressure applied by the diamond on the part.		M20	81898



# **SPINDLES**

# **TOP LOAD SPINDLES**

Tool clamped from the top, only one diameter. Possibility to use depth nose. IM3, M20 v3, M40, IS200, IS400 and ISx000 IQ 90W are delivered with a top load spindle in standard.







IM3 spindle

M series spindle

IS series spindle

	Tool diameter	Machine compatibility	Ref.
IM3	3.17 mm (0.12")	IM3	21690
M range	4.36 mm (0.17")	M20 v3, M40	80895
IS200	4.36 mm (0.17'')	IS200	22915
Other IS range	4.36 mm (0.17")	IS400, ISx000	22220

# **COLLET SPINDLE**

Hold the tool tightly to prevent play and tool breakage. For hard materials or precise machining. ISx000 IQ 200W, ISx000 XP 200W and ISx000 XP milling are delivered with a collet spindle in standard.

Machine compatibility: IS400, ISx000

Ref. 14763



# HIGH FREQUENCY SPINDLE - 150 W

Can be installed on IS400. Max speed of 60 000 rpm. Precise 2D, 2,5D and 3D machining. Recommended for aluminium or plastic front panels.

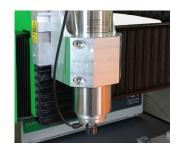
	Machine compatibility	Key features	Ref.
		Europe	47474
HF spindle - 150 W		UK	47475
	IS400, ISx000	Switzerland	47476
		US/Japan	47477
		China	76289



# HIGH FREQUENCY SPINDLE - 750 W

Highest torque in the range. Includes a set of clamps (type ER11) to use different tool sizes. Precise 2D, 2,5D and 3D machining. Repetitive cutting and engraving work in plastic or soft materials. Repetitive marking in hard materials such as steel and stainless steel.

	Machine compatibility	Ref.
HF spindle IQ - 750 W	ISx000 IQ 90W, ISx000 IQ 200W	80051
HF spindle XP - 750 W	ISx000 XP 200W	80052



# HIGH FREQUENCY SPINDLE - 1 KW

Max rotation = 90000 rpm (can be used for very thin tools <1.0 mm). Only spindle compatible with the automatic tool changer. ISx000 XP milling is delivered with a HF spindle 1kW in standard.

	Machine compatibility	Key features	Ref.
		Europe	50707
		UK	50780
	10.000	Switzerland	50781
HF spindle - 1 kW	ISx000	US	51732
		Japan	51733
		China	76290











# **Chip collectors**

# **COMPACT CHIP COLLECTOR**

Connects directly to the spindle nose. A must-have accessory to keep the machine and workplace clean and ensure a neat engraving result.

Weight	Dimensions (L x W x H)	Max. static pressure	Max. air flow	Machine compatibility	Key features	Ref.
					EU plug	47642
	155 x 100 x 180		20 m³/h	M20, M40, IS200	UK plug	47643
1.3 kg (2.87 lb)	I.3 kg	2.2 kPa			Swiss plug	47644
(6 x 4 x 7")			13200	US Plug	47645	
					China plug	76107



# LARGE CHIP COLLECTOR

Floor stand unit.

Connects directly to the spindle nose. A must-have accessory to keep the machine and workplace clean and ensure a neat engraving result.

Weight	Dimensions (L x W x H)	Max. static pressure	Max. air flow	Machine compatibility	Key features	Ref.
					EU plug	49262
	23 kg (50.71 lb) 290 x 290 x 540 mm (11.4 x 11.4 x 21")		25 m³/h	1S200, IS400, ISx000	UK plug	49263
23 ka					Swiss plug	49264
_		7.3 kPa			US Plug	49265
					Japan plug	64939
					China plug	76108





We offer three saws with various capabilities on the material size and thickness to cut. Our saws can cut most materials (i.e. plastic, acrylic, brass, aluminum, etc). Chip extractor is included in the machine.

# VA10 SAW

Dimensions: 830 x 550 x 250 mm (33 x 22 x 10")

Max. cutting length	Max. plastics thickness	Max. metals thickness	Max. Gravostrat™ thickness	Key features	Ref.
	620 mm 6.3 mm (24") (0.248")	4 mm (1/6")	6.3 mm (0.248")	EU plug	21770
620 mm				US plug	21771
(24'')				China plug	76111
				Japan plug	80888



VA10/11

# VA11 SAW

Dimensions: 910 x 550 x 250 mm (36 x 22 x 10")

Max. cutting length	Max. plastics thickness	Max. metals thickness	Max. Gravostrat™ thickness	Key features	Ref.
	55 mm 7 mm 5 mm			EU plug	21764
665 mm		5 mm	7 mm (0.276'')	US plug	21765
(26'')	(0.276'')	(0.20")		China plug	76112
				Japan plug	80889



VA10/11

# **VA21-15 SAW**

Dimensions: 1280 x 551 x 250 mm (51 x 22 x 10")

Max. cutting length	Max. plastics thickness	Max. metals thickness	Max. Gravostrat™ thickness	Key features	Ref.		
	1030 mm 7 mm 5			EU plug	21768		
1030 mm		5 mm	7 mm	US plug	21769		
(40'')	(0.276'')	(0.20'')	(0.20'')	6") (0.20")	(0.276'')	China plug	76114
				Japan plug	80891		



VA21-15

# **SAW BLADES**

		Key features	Ref.
24 teeth blade	VAT	Fast cutting of plastic and aluminium	21773
36 teeth blade		Precise clean cutting of aluminium and plastic	21796



# **GUILLOTINES**

Guillotines are an alternative to saws, their benefits are cutting precision and quality, speed of operation, noise and possibility to cut very small pieces.

However, they can be used only with certain types of thin plastic and metals.

	Dimensions (L x W x H)	Max. plastics thickness	Max. metals thickness	Ref.
CSP	530 x 380 x 240 mm (21 x 15 x 9.5")	2.4 mm (3/32'')	N/A	20198
CSM	530 x 380 x 240 mm (21 x 15 x 9.5")	N/A	1 mm (0.040'')	20199
CSC	240 x 150 x 120 mm (9.5 x 6 x 4.5'')	3 mm (1/8")	0.8 mm (1/32'')	23588





Ref. 14500 R: 3.2 mm (1/8") R: 6.3 mm (1/4")

R: 7.9 mm (5/16")

Ref. 14502

Ref. 14508 R: 9.5 mm (3/8")

# **VA2 BEVELLER**

Bevelled (or rounded) edges make plates and badges look smart, providing the finishing touch customers are looking for.

The VA2 beveller includes a chip extractor and can handle materials up to 4.5 mm (0.16") thick. Bevelling angle is 45°.

Max. cutting length	Max. plastics thickness	Max. metals thickness	Key features	Ref.
			EU plug	19927
N/A	N/A 4.5 mm (0.16")	4.5 mm (0.16'')	US plug	19928
(0.16)		(0.10 )	China plug	76109

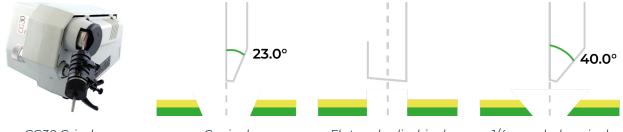




# OTHER ACCESSORIES

# **GRINDER**

CG30 grinder allows to resharpen your engraving and cutting tools. It achieves a variety of shapes (see below) with an exceptional precision and quality. Collets not included.



CU30	Grinaei	r

Conical

Flat end cylindrical

1/4 rounded conical

Dimensions (L x W x H)	Noise	Power	Key features	Ref.
360 x 300 x 212 mm (14.17 x 11.81 x 8.35'')	≤ 70 dB	90 W	EU plug	22797
			UK plug	22798
			US plug	20906
			Swiss plug	22799
			Japan plug	22800

# **GRINDING WHEEL**

The right grinding wheel depends on the cutter raw material to resharpen.

For carbide cutters, use diamond wheel and choose between the two particle sizes available:

- D16 (16 microns) for mirror finish.
- · D46 (46 microns) for polish finish.

For steel cutters, use Corundum wheel.

	Ref.
Diamond grinding wheel D16 for carbide cutters	22806
Diamond grinding wheel D46 for carbide cutters	20125
Corundum grinding wheel for steel cutters	20126







# **COLLET FOR CG30**

Collet is a precision item used to accurately center the cutter to grind, it ensures a perfect sharpening. CG30 grinder accepts 3 collet diameters: 3.17 mm (1/8"), 4.6 mm (11/64") and 6.35 mm (1/4").

	Ref.
CG30 collet - Ø = 3.17 mm (1/8'')	20890
CG30 collet - Ø = 4.36 mm (11/64'')	20891
CG30 collet - Ø = 6.35 mm (1/4")	20892





# Gravotech service offer

Gravotech is dedicated to provide you with the best warranties, services contracts and local support.



COMMISSIONING

# AT YOUR DOORSTEP

Set up and fine-tuning of your equipment by a Gravotech technician.



TRAINING

# TAILORED SESSIONS

Standard or customized training sessions, at your place or online.



# **SERVICING**

# **EXPERTISE**

Machine fleet audit and maintenance recommandations.

# PREVENTIVE SERVICES

Necessary care to maximize your machine lifetime.



# **TECHNICAL SUPPORT**

# PHONE ASSISTANCE

Gravotech experts dedicated to support and guide you.

# REMOTE ASSISTANCE

Video or screen sharing sessions available on demand.

Your machine accessories can also be covered, contact us for more information.

# Our services













CNC **TABLES** 

**IS200** 

IS400 / IS400 VOLUME

ISx000

Small signage and identification engraving machine

One of a kind metal engraving machine The large format CNC engraving machine

Application scope	••	••••	•••
Technology	Rotary, diamond dragging	Rotary, diamond dragging	Rotary, diamond dragging
Marking area max. (L x H)	225 x 80 mm (9 x 3 in)	305 x 210 mm (12 x 8 in)	IS6000: 610 x 410 mm (24 x 16 in) IS7000: 610 x 815 mm (24 x 32 in) IS8000: 610 x 1220 mm (24 x 48 in)
Spindle power	20 W	90 W (optional spindle: 150 W)	90 - 200 W (optional spindle: 150, 750, 1k W)
Max. object height	30 mm (1.2 in)	IS400: 105 mm (4 in) IS400 Volume: 400 mm (15.75 in)	80 mm (3 in)
	·	· ·	









**ENGRAVING STATION** 

IM3

The iconic pantograph

by Gravotech

M10 JEWEL

Compact ring and

bracelet engraving

machine

Custom engraving for all kind of purposes, from jewellery and perfume to small industrial signage

M 2 0

M40/M40GIFT

Multi-purpose rotary engraving machine for signage and gifts

Application scope	••	•	••••	•••	
Technology	Rotary, diamond dragging	Diamond dragging	Rotary, diamond dragging	Rotary, diamond dragging	
Marking area max. (L x H)	250 x 140 mm (9.9 x 5.5 in)	-	100 x 100 mm (4 x 4 in)	305 x 210 mm (12 x 8 in)	
Spindle power	-	-	30 W	30 W	
Max. object height	50 mm (2 in)	ø 12.5 - 80 mm (0.5 x 3.15 in)	100 mm (4 in)	110 mm (4.3 in)	
Dimensions (L x W x H)	580 x 510 x 280 mm (22.8 x 20 x 11 in)	230 x 293 x 290 mm (9 x 11.5 x 11.4 in)	375 x 350 x 360 mm (14.8 x 14 x 14.2 in)	550 x 510 x 320 mm (27.7 x 20 x 12.6 in)	

# **APPLICATION SCOPE:**

















Manufacturing













# **LASER TABLES**

LS100

LS100EX

LS900

LS1000XP

CO2 laser engraver for signage, creative cutting, and personalisation

The signage and small series laser engraving machine

The large laser engraver that can do everything

Large laser engraving and cutting machine for high productivity

Application scope	•••	•••	•••	•••
Laser source	CO2	CO2, Fiber	CO2, Fiber, Edge	CO2
Power (W)	25 - 40 - 60	CO2: 25 - 40 - 60 CO2 Energy: 25 Fiber: 20 - 30	CO2: 40 - 60 - 80 Fiber: 20 - 30 - 50 Edge: (CO2: 40 / Fiber: 20 - 30 - 50)	60 - 80 - 100 - 150
Marking area max. (L x H)	460 x 305 mm (18 x 12 in)	610 x 305 mm (24 x 12 in)	610 x 610 mm (24 x 24 in)	1220 x 610 mm (48 x 24 in)
Lenses (in)	1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0	1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0	1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4.0	2.0 - 3.0 - 4.0
Max. object height	145 mm (5.7 in)	145 mm (5.7 in)	250 mm (9.8 in)	300 mm (11.8 in)







# **LASER STATIONS**

WELASETM

LW<sub>2</sub>

**DOT PEEN STATION** 

IMPACT

Small laser engraving station Fully automated laser marking station

Benchtop dot peen marking station

Application scope	••	••	Application scope	•
Laser source	Fiber, Hybrid, Green, CO2	Fiber, Hybrid, Green	Technology	Dot peen, Pneumatic or Electromagnetic
Use rate	Adapted for small to medium batches	Fully automatic Adapted for high use rate	Software	Integrated traceability software with colour touchscreen
Marking area max. (L x H)	110 x 110 mm (4.3 x 4.3 in)	Up to 205 x 205 mm (8 x 8 in)	Marking area max. (L x H)	100 x 120 mm (4 x 4.7 in)
Max object Height	<b>Fiber, Hybrid, Green:</b> 100 mm (4 in) <b>CO2:</b> 180 mm (7 in)	Up to 322 mm (12.7 in)	Z axis stroke	300 mm (11.8 in)
Max object Weigth	3 kg (6.6 lbs)	25 kg (55 lbs)	Z axis type	Manual or Motorized & programmable

**RANGE OF INTEGRATED EXHAUST DEVICES** 





DEVICES	ES MINI	ES10	ES30	LE120HP/ LE140HP	LE150HP	LN1900	LE190HP
Max. air flow (m³/h)	190-220	200	360	400	400	240	700
Static pressure (kPa)	3	4	9	10	10	22	10
Active carbon (L)	-	13	30	20	40	42	40
Compatible	WeLase™	With fu	ll range	LS100	LS100Ex	LS900	LS1000XP





# XF510p

market

# XF510m



# XF510r



XF530

The fastest pneumatic dot peen marking machine on the

The precise and consistent electromagnetic dot peen marking machine

The quiet metal marking machine Deep and indelible dot peen marking

Application scope	•	•	•	•
Technology	Dot peen Pneumatic	Dot peen Electromagnetic	Diamond dragging	Dot peen Pneumatic or Electromagnetic
Main advantage	Speed	2D codes	Quiet	Deep marking
Marking area max. (L x H)	<b>Cp:</b> 50 x 20 mm (2 x 0.8 in), <b>Sp:</b> 100 x 80 mm (4 x 3.15 in), <b>Dp:</b> 200 x 80 mm (7.9 x 3.15 in)	Cm: 50 x 20 mm (2 x 0.8 in), Sm: 100 x 80 mm (4 x 3.15 in), Dm: 200 x 80 mm (7.9 x 3.15 in)	<b>Cr:</b> 40 x 50 mm (1.6 x 2 in), <b>Sr:</b> 80 x 50 mm (3.15 x 2 in), <b>Dr:</b> 160 x 50 mm (6.3 x 2 in)	200 x 50 mm (7.9 x 2 in)
Material hardness (HRC)	< 62	< 62	< 62	< 62



# **CONTROL** UNIT

**INTEGRABLE** 

**DOT PEEN & SCRIBING** 

# XCOM

# **CONNECTED TOUCH-SCREEN CONTROLLER**

XCOM is the solution to pilot dot-peen and scribing machines and to control their integration on production lines. Connected to the main 4.0 industrial environments, XCOM is the most communicative and autonomous control unit on the market.











# **INTEGRABLE LASER MARKERS**

# FIBER

Integrated laser marking system for metal and plastic parts

# HYBRID

The best compromise between versatility, high quality and high speed to meet all your marking needs

# GREEN

Integrated laser marking system to mark highly reflective materials and sensitive plastic

# CO2

High-speed laser engraver: the best to mark organic materials and coated surfaces

			materials						
Application scope	••	••	••	••					
Wavelength (nm)	1 064	1064	532	10 600					
Power (W)	Fiber Premium: 20 - 30 - 50 Fiber Standard: 20 - 30 Fiber Energy: 20 - 30	10 - 20	5 - 10	30					
Process automation	Industrial Ethernet Networks: PROFINET / ETHERNET IP								
Embedded intelligence	Autonomous / Programmable by PLC / No PC required / Traceability Management								
Laser classification	Class 4 Laser system, possibi	Class 4 Laser system, possibility to switch in Class 1 for integration on a station or equipped with Mini Inline module.							

# **APPLICATION SCOPE:**

Look around you and you'll notice that most objects around you are marked, engraved or customized. Find them and you'll find Gravotech!









Signage



Creative



Manufacturing



# Our applications





# **GRAVOSTYLE**

		DISCOVERY  Laser + Rotary	DISCOVERY MAX  Laser + Rotary
		Go hybrid. Drive laser & rotary technology.	Productivity package
LEVELS	Features	Matrix and variable lists     Import of vector files (DXF, EPS, HPGL) and images (BMP, JPG, PNG and TIF)     Plate Point & Shoot: makes it possible to define the engraving area directly on the machine     PDF import & files export (PDF, DXF, EPS, HPGL)     Alignment & transformation tools     Geometric shapes     Laser driving capabilities with presets     Extensive choice of symbols     Calibration wizard: one-step process to establish optimal laser settings     On-screen preview	Scanning and vectorisation  Point mode and bitmap editor  Decess by colour  Retail font pack (incl. over 100 fonts)  Scripting (macro function capabilities)
	Options	<ul> <li>braille production</li> <li>Font editor</li> </ul> Personalisation pack: <ul> <li>Handwriting stroked engraving fonts</li> <li>Photo processing capabilities</li> <li>Additional stroked engraving fonts</li> </ul>	• Text on a curve
	Applications	<ul> <li>Plate serialisation</li> <li>Badges, nameplates &amp; doorplates</li> <li>Photo touch-ups</li> <li>Jewellery &amp; gifts</li> <li>Variable list of names</li> <li>Funeral plates</li> <li>Rubber stamps</li> <li>Pet tags &amp; key rings</li> <li>Legend plates</li> </ul>	<ul> <li>Logo scanning and editing</li> <li>Trophy plates</li> <li>Plates with text and logos</li> <li>Signage with text and logos</li> </ul>
IN ALL LEVELS	Features	<ul> <li>Computip feature to recommend the most efficient tools</li> <li>Support for Automatic Plate Feeding applications</li> <li>Support for cylindrical engraving</li> <li>Customisation of working environment</li> </ul>	Post-it function to take notes while you engrave Hot keys Favourites toolbar Object freezing



# THE UNIQUE SOFTWARE FOR LASER AND ROTARY **ENGRAVING MACHINES**









# SOZ LASER PARAMETERS

# CO2 laser parameters for: LS100, LS100EX (40 W)



This document provides a base of engraving parameters to be used on Gravotech laserable materials. They are indicative values that can be subject to modification, that are recommended by professional engravers and have been tested and verified for the LS100Ex & LS100 40 W.

# LASER MATERIALS

	Power	Speed	Passes	Focus	Retocus	Air	Type	Dbi	Inickness	Comments
	10%	100%	1	-	Before	no	Vector	500	-	
Gravoply™	40%	100%	1	-	Before	no	Raster	500	-	
Laser	80%	30%	1	-	Before	yes	Cutting	500	0.8 mm (.030")	
	100%	28%	1	-	Before	yes	Cutting	500	1.3 mm (.050")	
	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	
Gravoply™ Ultra	70%	40%	1	-	Before	yes	Cutting	500	0.5 mm (.020")	
	100%	25%	1	-	Before	yes	Cutting	500	1.6 mm (1/16")	
	100%	10%	1	-	Before	yes	Cutting	500	-	
Craves h TM 2	10%	100%	1	-	Before	no	Vector	500	-	
Gravoply™ 2	50%	100%	1	-	Before	no	Raster	500	-	
	80%	40%	1	-	Before	no	Vector	500	-	Subsurface engraving
	80%	40%	1	3.0mm (1/8")	Before	no	Raster	500	-	Subsurface engraving
Gravoglas™ 1	100%	18%	1	-	Before	yes	Cutting	500	1.5 mm (1/16")	Keep the plastic film on
	100%	10%	1	-	Before	yes	Cutting	500	3.0 mm (1/8")	Keep the plastic film on
	100%	5%	1	-	Before	yes	Cutting	500	5.0 mm (.20")	Keep the plastic film on
	30%	100%	1	-	Before	no	Vector	500	-	
	60%	100%	1	-	Before	no	Raster	500	-	
Acrylic	100%	8%	1	-	Before	yes	Cutting	500	3.0 mm (1/8")	
	100%	5%	1	-	Before	yes	Cutting	500	6.0 mm (.20")	
	100%	1%	1	-	Before	yes	Cutting	500	10 mm (.40")	
Gravotac™	50%	20%	1	-	Before	yes	Cutting	500	0.8 mm (.030")	
Exterior	100%	25%	1	-	Before	yes	Cutting	500	1.6 mm (1/16")	
	10%	100%	1	-	Before	no	Vector	500	-	
Flexilase™	30%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
	100%	5%	1	-	Before	yes	Cutting	500	0.25 mm (.01")	
	10%	100%	1	-	Before	no	Vector	500	-	
Stickalase™	40%	100%	1	-	Before	no	Raster	500	-	Gravogrip advised
	20%	30%	1	-	Before	yes	Cutting	500	0.09 mm (.004")	
CrayoctrotTM	50%	60%	1	-	Before	no	Vector	500	-	
Gravostrat™	100%	60%	1	-	Before	no	Raster	500	-	
	100%	20%	1	-1.5mm (-1/16")	Before	no	Vector	500	-	
Rubbalase™	100%	20%	1	-1.5mm (-1/16")	Before	yes	Raster	500	-	
	100%	5%	1		Before	yes	Cutting	500	2.2 mm (.087")	
	40%	70%	1	-2.0	Before	no	Raster	400	-	
	100%	40%	1	-	Before	yes	Cutting	400	0.4 mm (1/64")	
Laser Wood	100%	35%	1	-	Before	yes	Cutting	400	1.0 mm (3/64")	
	100%	12%	1	-	Before	yes	Cutting	400	2.5 mm (3/32")	
	100%	5%	1	-	Before	yes	Cutting	400	4.5 mm (11/64")	



The purpose of this document is to help each engraver get an idea as to how to engrave on Gravotech laserable materials. The parameters are sorted by product range. Every material can have up to 3 different types of engraving process:

- · Vector, for lightweight linear tracing
- · Raster, for heavy marking
- · Cutting

Some materials may not be engraved with a certain type of engraving process: if the specific type is not in the grid of the material, then it's most likely that it we do not recommend this engraving method on the indicated material.

# **METALLICS MATERIALS**

	Power	Speed	Passes	Focus	Refocus	Air	Type	Dpi	Thickness	Comments
Gravolase™ Metallics	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	
	70%	40%	1	-	Before	yes	Cutting	500	0.5 mm (.020")	
	100%	25%	1	-	Before	yes	Cutting	500	1.6 mm (1/16")	
Metallex™	10%	100%	1	-	Before	no	Vector	500	-	
	40%	100%	1	-	Before	no	Raster	500	-	All Metallex™ material surfaces
Gravoxal™	30%	100%	1	-	Before	no	Vector	500	-	All Gravoxal™ material surfaces
	50%	100%	1	-	Before	no	Raster	500	-	All Gravoxal™ material surfaces
AlumaMark®	30%	50%	1	-	Before	no	Vector	500	-	
	30%	80%	1	-	Before	no	Raster	500	-	
DuraBlack®	20%	80%	1	-	Before	no	Raster	500	-	

# **TECH TIPS**

Floating pin table cutting - When using a floating pin table, place an aluminium plate under the strips to avoid laser reflection to prevent engraving under the material.

# $Gravogrip^{TM}$ :

- · Use Gravogrip™ when engraving on thin materials as they can have uneven surfaces.
- · Avoid using too much power when engraving to prevent damage to the Gravogrip™ plate.

Note: in case of unexpected behavior during the engraving process, please refer to the machine's User Manual for troubleshooting.



# Global reach

A global leader in the engraving and permanent marking industry, Gravotech's many subsidiaries and distributors/agents around the world offer a complete and worldwide engraving solution to their customers, coupled with unparalleled customer service and support.



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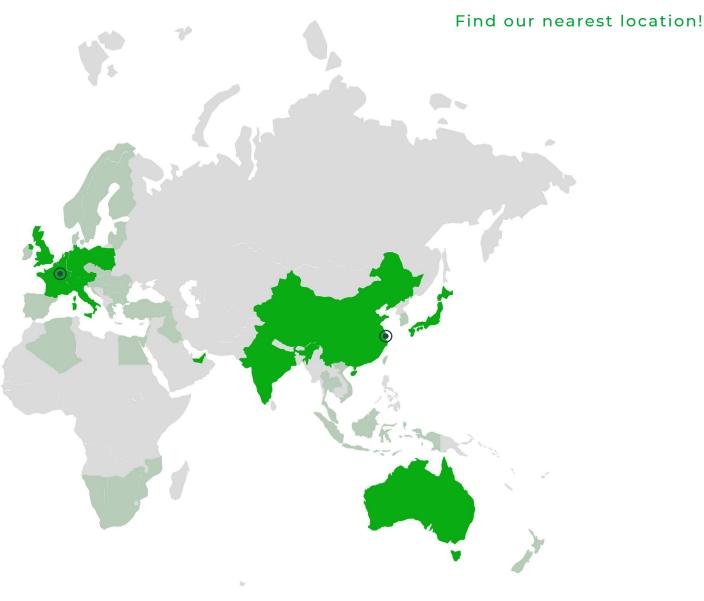
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# **Gravotech Group (Corporate Headquarters)**

466 Rue des Mercières Z.I Perica 69140 Rillieux-la-Pape France

+33.4.78.55.85.50 contact@gravotech.com

CONTACT



www.gravotech.com