



SPECTROGRAPHIC

LIMITED

www.spectrographic.co.uk

Consumables Brochure October 2019

Please note that the prices in this brochure could change at anytime

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www.spectrographic.co.uk



SPECTROGRAPHIC LIMITED

Welcome to Spectrographic's consumables catalogue 2019

Our extensive range of metallurgical consumables has been chosen to complement your cutting, mounting, grinding and polishing processes. We also offer a variety of products designed for onsite metallurgical replication and for the study of microstructures.

All our consumables are available to buy online or via our customer sales office on 01943 879001.

Visit our new e-shop www.spectrographic.co.uk/collections/consumables

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Spectrographic offers a broad range of metallurgical cutting consumables, including resin bonded cutting wheels, diamond cutting wheels, coolants and accessories.

Standard resin bonded aluminium oxide (Al₂O₃) or silicon carbide (SiC) cutting wheels (blades) with 32mm central hole.

Arranged in terms of hardness of material to be cut, these cutting wheels are suitable for applications where a high quality metallurgical cut surface is required.

Key to Cut off wheel specification

AAA for very hard ferrous case hardened RC 60+

AA for hard ferrous case hardened RC 50 - 60

A for medium ferrous case hardened RC 35 - 50

NF for soft non ferrous case hardened

NF+ for hard non ferrous case hardened

SS for soft ferrous metals 20-40 HRC

MS for hard and medium - hard metals 38-58 HRC

HS for very hard metals, Ni-base alloys 55-70 HRC

Standard Resin Bonded Cutting Wheels – 10 per box

Specification	Abrasive	250 x 1.8 x 32mm		300 x 2.0 x 32mm		350 x 2.4 x 32mm		-	
AA	Al ₂ O ₃	-	-	1026329	£88.00	1027429	£170.00	-	-

Specification	Abrasive	250 x 1.6 x 32mm		300 x 2.0 x 32mm		350 x 2.4 x 32mm		400 x 3 x 32mm	
SS	Al ₂ O ₃	1065210	£89.00	1066310	£115.00	1067410	£145.00	1068510	£190.00
MS	Al ₂ O ₃	1065220	£89.00	1066320	£115.00	1067420	£145.00	1068520	£190.00
HS	Al ₂ O ₃	1065230	£89.00	1066330	£115.00	1067430	£145.00	1068530	£190.00
NF	SiC	1065240	£105.00	1066340	£148.00	1067440	£166.00	1068540	£221.00
TNF	SiC	1065250	£115.00	1066350	£164.00	1067450	£201.00	1068550	£248.00
HGST	Al ₂ O ₃	1065260	£89.00	1066360	£115.00	1067460	£145.00	1068560	£190.00

Contract Resin Bonded Cutting Wheels – 50 per box (minimum)

Specification	Abrasive	250 x 1.6 x 32mm		300 x 2.0 x 32mm	
A	Al ₂ O ₃	1035119	£255.00	1036219	£351.00
AA	Al ₂ O ₃	1035129	£299.00	1036229	£408.00

Small diameter precision cutting wheels for compact bench-top cutting machines, including low speed saw, for wet or dry cutting. Other arbor sizes available.

Small Diameter Precision Cutting Wheels – 10 per box

Specification	Abrasive	100 x 0.3 x 12.7mm		150 x 0.5 x 12.7mm		180 x 0.5 x 25.4mm		200 x 0.6x 25.4mm	
AA	Al ₂ O ₃	1011127	£79.00	-	-	-	-	1014228	£215.00
AAA	Al ₂ O ₃	-	-	1012137	£113.00	1013138	£196.00	-	-

Specification	Abrasive	100 X 0.3 X 12.7mm		150 x 0.5 x 12.7mm		180 x 0.5 x 25.4mm		200 x 0.8 x 25.4mm	
SS	Al ₂ O ₃	-	-	-	-	-	-	1064010	£91.00
MS	Al ₂ O ₃	-	-	-	-	-	-	1064020	£91.00
HS	Al ₂ O ₃	-	-	-	-	-	-	1064030	£91.00
NF	SiC	1011157	£87.00	-	-	-	-	1064040	£100.00
TNF	SiC	-	-	-	-	-	-	1064050	£102.00
HGST	Al ₂ O ₃	-	-	-	-	-	-	1064060	£91.00

Large Diameter Precision Cutting Wheels – 5 per box					
	Abrasive	250 x 1.0 x 32mm		300 x 1.0 x 32mm	
AA	Al ₂ O ₃	1015329	£108.00	1016129	£136.00
Specification	Abrasive	250 x 1.0 x 32mm		300 x 1.5 x 32mm	
SS	Al ₂ O ₃	1065110	£102.00	1066110	£134.00
MS	Al ₂ O ₃	1065120	£102.00	1066120	£134.00
HS	Al ₂ O ₃	1065130	£102.00	1066130	£134.00
NF	SiC	1065140	£108.00	1066140	£164.00
H NF	SiC	1065150	£128.00	1066150	£184.00
HGST	Al ₂ O ₃	1065160	£102.00	1066160	£134.00

GUIDE TO CUT OFF WHEELS

SOFT

HARD

	NON-FERROUS, MATERIALS	TITANIUM ALLOYS	SOFT TO MEDIUM STEELS	MEDIUM TO HARD STEELS 50-60 HRC	VERY HARD STEELS & METALS 60 HRC+	HEAT TREATED SAMPLES	CERAMICS, GLASS, STONES, MINERALS
STANDARD CUT OFF WHEELS	NF	H NF	SS	MS	HS	HGST	
PRECISE CUTTING	NF	NF+/H NF	AA/SS	AA+/MS	AAA+/HS	HGST	MB

Precision resin bonded cutting wheels for wet cutting only. The blades are manufactured to higher tolerances than standard resin wheels, both on flatness and thickness.

Their reduced thickness and improved composition means they are good for cutting both ferrous and non-ferrous metals, where loss of material and quality of finish is important. Cool cutting gives a high quality finish, and saves time on grinding and polishing. These wheels are especially useful for cutting stainless and titanium tube samples of hardened steel, stainless steels and titanium alloys.



For expert advice call:
01943 879001

The blades in this range have continuous, diamond-tipped rims. They are used to cut materials, which cannot be cut with an alumina or silicon carbide cutting wheel, such as carbides, ceramics, PCBs, composites and glass. They are not designed for cutting ferrous metals and alloys.



Diamond cutting wheels

Metal Bonded Diamond Wheels for use on non ferrous metals, medium hard ceramics, spray coatings, MM composites & PC boards. Hole size: 12.7mm; other sizes



CALL: 01943 879001
for a bespoke quote

Diamond cutting wheels 12.7mm arbor – 1 per box (MB)

101 x 0.4m x 12.7mm		123 x 0.4 x 12.7mm		150 x 0.5 x 12.7mm		178 x 0.6 x 12.7mm		200 x 0.8 x 12.7mm	
CODE	PRICE	CODE	PRICE	CODE	PRICE	CODE	PRICE	CODE	PRICE
1041107	£215.00	1042107	£227.00	1044207	£283.00	1045307	£306.00	1046407	£329.00

CBN (Cubic Boron Nitride) Wheel recommended for iron and cobalt based alloys, nickel based super alloys and lead based alloys. Hole size: 12.7mm; other sizes available to order.

CBN cutting wheels 12.7mm arbor – 1 per box

101 x 0.4m x 12.7mm		123 x 0.5 x 12.7mm		150 x 0.6 x 12.7mm		178 x 0.6 x 12.7mm		200 x 0.8 x 12.7mm	
CODE	PRICE	CODE	PRICE	CODE	PRICE	CODE	PRICE	CODE	PRICE
1051107	£227.00	1052207	£238.00	1054307	£329.00	1055307	£340.00	1056407	£397.00

Using a coolant during cutting is preferred since it acts to reduce the cutting temperature and provides lubrication. A dressing stick is useful to restore the cutting action and unclog diamond wheels, particularly when cutting soft materials.

Coolants and accessories

DESCRIPTION	QTY	CODE	PRICE	QTY	CODE	PRICE	QTY	CODE	PRICE
Anti Rust, water soluble 4%	1ltr	1090120	£21.00	5ltr	1090130	£68.00	20ltr	1090160	£181.00
Cutting coolant for precision cutters (to be used neat)	1ltr	1090320	£28.00	10ltr	1090340	£139.00	-	-	-
PRESI Antiseptic liquid	0.5ltr	1090210	£26.00	-	-	-	-	-	-
Dressing Stick 25 x 13 x 75mm	each	1090050	£18.00	-	-	-	-	-	-

COLD MOUNTED RESINS

Spectrographic's mounting consumables have been carefully chosen to complement your metallurgical encapsulation requirements. We recommend acrylic resins for general and advanced procedures. Epoxy resins are more suitable for porous materials and improved edge retention. We also supply a variety of common moulding resins for hot mounting.

EPOXY RESINS

Although more expensive than other types of cold mounting resins, epoxy resins have the advantage of low shrinkage on curing, which results in good adhesion to the geometry of the embedded sample.

Epoxy resin is a two-component epoxy system which sets at room temperature to give a clear, pale, scratch-resistant surface with a bright, non-sticky finish. The cured material exhibits good mechanical properties, excellent resistance to temperature fluctuations and very good chemical resistance. It is stable under tropical conditions, does not cause corrosion and is electrically insulating. It will not shatter on impact.

Epoxy Resins - Flow/fast cure

DESCRIPTION	CODE	QUANTITY	PRICE
Epoxy casting compound with hardner	1243400	1kg plus 500cc	£82.00
Black Epoxy casting compound with hardner	1253400	1kg plus 500cc	£100.00

ACRYLIC RESINS

Fast Cure Acrylic VA50 is a clear two component mixture of resin powder and liquid hardener which reduces shrinking and has very good adhesion. This product hardens as an almost crystal clear translucent block.

Acrylic resins - Fast cure acrylic VA50

DESCRIPTION	CODE	QUANTITY	PRICE
Powder	1212600	1Kg	£74.00
Liquid	1211500	0.5ltr	£48.00

High Hardness Fast Cure Acrylic VA75 is a two component mixture of powder and liquid, which has a fast cure time and hardens as a green block. It has good adhesion and low shrinking which offers improved flatness and good edge retention. A cure time of 12 minutes is required.

Acrylic resins - High hardness green VA75

DESCRIPTION	CODE	QUANTITY	PRICE
Powder	1222600	1Kg	£79.00
Liquid	1221500	0.5ltr	£63.00

Acrylic resin VA100

is a two component mixture of resin powder and liquid hardener that has proved very popular with customers as it is very cost effective. It hardens at room temperature into a clear block. A cure time of 12 minutes is required.

Acrylic Resins - VA100

DESCRIPTION	CODE	QUANTITY	PRICE
Powder	1231100	1Kg	£44.00
Liquid	1232500	0.5ltr	£26.00
Powder	1231800	5Kg	£204.00
Liquid	1232600	1ltr	£39.00



ACRYLIC RESIN - CONDUCTIVE

Acrylic resin conductive is a two component mixture of resin powder and liquid based on methyl methacrylate. The conductive carbon included in this cold embedding resin provides good electrical conductivity. This product is especially suitable for use in a scanning electron microscope (SEM) but also for electrolytic polishing. As the conductivity is not based on metal, distortion of the results due to diverted metallic particles is avoided.

Acrylic Resin Conductive			
DESCRIPTION	CODE	QUANTITY	PRICE
Conductive Cold Mounting 2 part System	1273400	1kg/1ltr	£193.00

POLYESTER RESIN

Polyester resin is a two component system resulting in a water clear cast. This product offers an economical mounting system. A cure time of two hours is required at 20°C.

Polyester Resin			
DESCRIPTION	CODE	QUANTITY	PRICE
Resin and catalyst	1263400	1kg	£34.00

Accessories			
DESCRIPTION	CODE	QUANTITY	PRICE
Metallurgical Levelling Press	1994000	1	£150.00
Microscope Slides, 1.0-1.2mm thick, 76 x 38mm	1991000	50	£25.00
Plasticine Block 500g	1992000	500g	£6.00
Microscope Cleaning Kits	1993000	1	£32.00
1mm scale in 0.01mm divisions (UKAS cal) Micrometer	1995200	1	£292.00
1mm scale in 0.01mm divisions uncertified Micrometer	1995300	1	£115.00

Mixing Accessories - Useful tools when mixing small quantities of resin			
DESCRIPTION	CODE	QUANTITY	PRICE
Stirring sticks	1285000	100	£10.00
Paper cups 100ml	1284000	100	£23.00
Mould removal aerosol 400cc	1283200	1	£22.00

Sample Holding Clips - A range of clips which can be used to clamp samples and position them inside a mould			
DESCRIPTION	CODE	QUANTITY	PRICE
Triclips	1281100	100	£23.00
SS Clips	1281400	100	£41.00
O Clips	1281300	100	£40.00
C plastic clips	1281200	100	£34.00

MOULDS

Silicone rubber embedding moulds are available for use with a wide range of cold mounting resins. Used to embed metallurgical samples, these moulds are made from a highly flexible material, have a smooth internal surface, and good thermal properties. They are designed for ease of use and removal of cured samples.

The life of the mould depends on the type of resin being used. Acrylics and polyesters can be repeatedly used in a mould and will endure several hundred embedding processes. Embedding moulds are available in various geometries and for a wide range of material samples.

Circular Embedding Moulds			
DESCRIPTION	CODE	QUANTITY	PRICE
25mm rubber	1282210	5	£55.00
30mm rubber	1282220	5	£34.00
40mm rubber	1282230	5	£59.00
50mm rubber	1282240	3	£82.00
30mm Acrylic (KM)	1282100	15	£19.00
25mm polypropylene	1282410	12	£29.00
30mm polypropylene	1282420	12	£29.00
40mm polypropylene	1282430	12	£29.00

Rectangular Embedding Moulds			
DESCRIPTION	CODE	QUANTITY	PRICE
100 x 50 x 22 Rubber	1282330	3	£131.00
70 x 40 x 22 Rubber	1282320	3	£100.00
55 x 30 x 22 Rubber	1282310	3	£94.00

Parameter	Cold Mounting	Hot Compression Mounting
Cycle Time	Usually 1 hour or more	~10 minutes
Bottom surface	Convex- requires grinding	Parallel to top surface – important for Hardness testing
Economy	Cold setting resins are more expensive	Phenolics are very economically priced but investment in Mounting press required
Health & Safety	Cold resins cured under a extractor hood	Sealed cylinder
Conductive samples	Resins with carbon filler material	Resins with Carbon or Copper particles – important for SEM

HOT MOUNTING RESINS

Spectrographic offers a variety of hot compression mounting resins for encapsulation of polished samples.

The most common and economical hot mounting resins are the phenolic resins (Bakelite). This type of thermosetting resin will suit most hot mounting applications and is available in two colours. In cases where better sample edge retention is required, the use of epoxy mounting compounds is recommended. Where samples are to be examined in an SEM, carbon conducting compound is advised. In applications where a transparent mount is desirable, an acrylic thermoplastic mounting compound is the resin of choice.

Hot mounted resins					
	APPLICATION	COLOUR	QUANTITY	CODE	PRICE
Black Phenolic Resin	Standard hot mounting compound	Black	2.5kg	1110010	£21.00
Black Phenolic Resin	Standard hot mounting compound	Black	10kg	1120010	£61.00
Black Phenolic Resin	Standard hot mounting compound	Black	25kg	1130010	£131.00
Red Phenolic Resin	Standard hot mounting compound	Red	2.5kg	1110020	£30.00
Red Phenolic Resin	Standard hot mounting compound	Red	10kg	1120020	£74.00
Red Phenolic Resin	Standard hot mounting compound	Red	25kg	1130020	£184.00
Epoxy Edge Retention	Better edge retention	Black	2.5kg	1110040	£66.00
Epoxy Edge Retention	Better edge retention	Black	10kg	1120040	£245.00
Glass Fibre Filled	Edge retention	Black	2.5kg	1110080	£43.00
Glass Fibre Filled	Edge retention	Black	10kg	1120080	£153.00
Carbon Conductive	SEM investigation	Black	2.5kg	1110050	£56.00
Carbon Conductive	SEM investigation	Black	10kg	1120050	£159.00
Carbon Conductive	SEM investigation	Black	25kg	1130050	£340.00
Acrylic Transparent	Thermoplastic Transparent mounts	Colourless	2.5kg	1110030	£44.00
Acrylic Transparent	Thermoplastic Transparent mounts	Colourless	10kg	1120030	£136.00
Diallyl Phthalate glass	Lowshrinking,goodadhesion to sample, resists hotetchant+strong acids, good for use with hard metals.	Blue	2.5kg	1110060	£136.00
Diallyl Phthalate glass	Lowshrinking,goodadhesion to sample, resists hotetchant+strong acids, good for use with hard metals.	Blue	10kg	1120060	£510.00



For expert advice call:
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Spectrographic offers a broad range of grinding consumables suitable for all standard machines from all main manufacturers, including diamond and microdiamond grinding products, abrasive belts, rolls and sheets and silicon carbide papers.

The Cubic diamond grinding discs prepared with dots of diamond abrasive for stock removal and finishing, ideal for very hard materials like glass and ceramics

FLEXIBLE DIAMOND DISCS FOR GRINDING AND POLISHING

We offer a range of fixed diamond abrasive discs used as an alternative to grinding of metallurgical samples using silicon carbide abrasive papers. Steel backed.

SQUADRO-M

This product enables fine grinding of various materials with diamond micron size down to 3µm, The pad consists of micron diamond abrasives embedded in a structure matrix of high performance polymers. The resin structures are mounted on a textile base, which absorbs vibrations and thus improves surface quality. The Squadro-M is based on a medium hard resin bond. Steel backed.

APOLLO-S

This is a self-sharpening, flexible diamond grinding pad for flat and fine grinding applications of various materials. Precision graded diamond and optimized grit concentration lead to short process time, flat surfaces and superior edge sharpness. This product and is based on a resin bond. Steel backed.

CUBIC

The Cubic diamond grinding discs are prepared with dots of diamond abrasive for stock removal and finishing, ideal for very hard materials like glass and ceramics. This products comes with a PSA backing.

IRINO POLISHING PAD

This composite polishing pad is closing the gap between lapping on metal plates and polishing on pads. It is to be combined with diamond slurries and allows for high surface qualities and impressive stock removal rates at the same time. IRINO-F is steel resin hard bonding, IRINO-C is copper resin medium-hard bonding and IRINO-S is tin resin soft bonding.



For expert advice call:
01943 879001

FLEXIBLE DIAMOND DISCS

PACK OF 1	MIC SIZE	200 mm		250 mm		300 mm	
		CODE	PRICE	CODE	PRICE	CODE	PRICE
Squadro-M	3	1411100	£158.00	1413100	£191.00	1414100	£222.00
Squadro-M	6	1411200	£158.00	1413200	£191.00	1414200	£222.00
Squadro-M	15	1411300	£158.00	1413300	£191.00	1414300	£222.00
Squadro-M	30	1411400	£158.00	1413400	£191.00	1414400	£222.00
Squadro-M	60	1411500	£158.00	1413500	£191.00	1414500	£222.00
Apollo-S	18	1421100	£132.00	1423100	£159.00	1424100	£185.00
Apollo-S	54	1421200	£132.00	1423200	£159.00	1424200	£185.00
Apollo-S	75	1421300	£158.00	1423300	£191.00	1424300	£222.00
Apollo-S	125	1421400	£190.00	1423400	£227.00	1424400	£267.00
Cubic	10	1431100	£79.00	1433100	£125.00	1434100	£176.00
Cubic	20	1431200	£111.00	1433200	£170.00	1434200	£241.00
Cubic	30	1431300	£79.00	1433300	£125.00	1434300	£176.00
Cubic	40	1431400	£115.00	1433400	£173.00	1434400	£234.00
Cubic	75	1431500	£118.00	1433500	£183.00	1434500	£247.00
Cubic	125	1431600	£147.00	1433600	£229.00	1434600	£306.00
Cubic	250	1431700	£200.00	1433700	£278.00	1434700	£408.00

IRINO POLISHING PAD

PACK OF 1	200 mm		250 mm		300 mm	
	CODE	PRICE	CODE	PRICE	CODE	PRICE
IRINO-C Copper-Resin MAG	1451000	£86.00	1453000	£75.00	1454000	£127.00
IRINO-F Metal-Resin MAG	1461000	£86.00	1463000	£94.00	1464000	£89.00
IRINO-S Tin-Resin MAG	1471000	£68.00	1473000	£85.00	1474000	£102.00

GEKFIX

The GekFix – a new, cost effective and simple-to-use solution designed for holding grinding papers, is revolutionising the metallurgical industry.

The 'GekFix' – so called because of its durability and strength, has the ability to fix plain-backed grinding papers, known in the industry as 'grit papers', securely to both automatic and manual polishing machines, removing the need for adhesive-backed products and paper holding clip technology.

Early customer demonstrations and long-term trials have shown the system to be a high-performance solution for fixing of grinding papers, and eliminating the problems associated with strong adhesive and worn paper holding bands.

The GekFix has been developed with an advanced polymer technology, which makes it an extremely durable product. This revolutionary system has a very long-life span, and can even be replenished by light washing.

We think the GekFix is the perfect solution for holding grinding papers. Available with an optional steel backing to integrate with the magnetic system, is ideal for holding papers firmly in place. And, since it is available for all current machines, it is fast becoming one of our most popular products.

A small metallurgical lab may typically use one pack of each grade of adhesive grinding papers a month, and may therefore spend in the region of £4,000 - £5,000 a year on grinding papers alone. Because GekFix works as a non-adhesive system, users could potentially save up to £3,000 per year.

GekFix

A new, cost effective and simple-to-use solution designed for holding grinding papers, is revolutionising the metallurgical industry. The GekFix has been developed with an advanced polymer technology (the same material used by the aerospace industry), which makes it an extremely durable product. This revolutionary system has a very long-life span, and can even be replenished by light washing.

FROM: **£39.00** ex VAT



The GekFix allows us to use plain backed grinding papers, which helps us to make super savings on grinding products.



S.Bradley – Praxair



Fixturing for Polishing and Grinding

DESCRIPTION	200 MM		250MM		300 MM	
SteelFix Disc Plain Steel discs (1)	1721000	£11.00	1723000	£18.00	1724000	£21.00
SA Magnefix 1.5mm Magnetic fixture (Adhesive) (1)	1731000	£11.00	1733000	£18.00	1734000	£21.00
GekFix For fixturing plain backed grinding papers on Steel (Pk 1)	1741000	£40.00	1743000	£46.00	1744000	£55.00
GritFix PSA with direct application to platen (2)	1751000	£70.00	1753000	£83.00	1754000	£100.00
Plain Top Magnet 0.75mm (1)	1761000	£5.00	1763000	£6.00	1764000	£7.00
MagPol 1.5mm Magnetic fixture (5)	1771000	£26.00	1773000	£30.00	1774000	£40.00

Comparison of Grit Sizes calculated by international different standards compared to average particle size in micrometers (um).

The grinding paper grit sizes used in this catalogue follow the European P grit system. In most cases this is translatable to US or Japanese grit sizes using the table below. Note: this chart has been simplified for comparison purposes.

Grit Size Comparison Chart

FEPA-EUROPE	CAMI - USA	JIS - JAPAN	AV. µm size	FEPA-EUROPE	CAMI - USA	JIS - JAPAN	AV. µm size
P60	60	-	265	P600	-	600	25
P80	80	-	195	P800	400	-	22
P120	120	150	120	P1000	500	-	19
P180	180	-	78	P1200	600	800	16
P240	220	240	60	P2400	1000	1500	8.5
P320	280	320	44	P4000	1200	2000	7
P400	320	360	35	-	-	-	-

Silicon carbide (SiC) abrasive paper discs

SiC abrasive paper discs are available in plain and adhesive premium quality grinding papers, in a range of grits sizes. The introduction of the grit fix system, which uses plain backed papers, offers a strong economical advantage for manual and automatic grinding.

Plain backed discs

Plain backed discs are designed to be retained on the platen with an edge clip or additional adhesive system. The diameter is oversize so that the clip has sufficient material to clamp.

Pressure sensitive adhesive (PSA) backed discs

Peeling the backing of these discs leaves an adhesive surface which sticks firmly to the platen. The polymer backing film can be retained on the disc and is attracted to the PullFix support (Reflex, Gekko).

Abrasive belts, rolls and cloths.

GRIT (FEPA)	SIC BELTS (10)		ZR02 BELT (10)		SIC ROLLS (1)		PSA CLOTHS	
SIZE	100 x 915 mm		100 x 1090 mm		3" X 50 - 75FT		32MM	
P60	1360110	£85.00	1360211	£104.00	-	-	-	-
P80	1360120	£82.00	1360212	£99.00	-	-	1350120	£18.00
P120	1360130	£79.00	-	-	1370113	£34.00	1350130	£18.00
P180	1360140	£77.00	-	-	1370114	£31.00	1350140	£18.00
P240	1360150	£77.00	-	-	1370115	£31.00	1350150	£18.00
P320	1360160	£79.00	-	-	1370116	£31.00	1350160	£18.00
P400	1360170	£77.00	-	-	1370117	£31.00	1350170	£18.00
P600	1360180	£77.00	-	-	1370118	£31.00	1350180	£18.00
P800	1360190	£77.00	-	-	1370119	£31.00	1350190	£18.00
P1200	1360121	£77.00	-	-	1370121	£31.00	1350121	£18.00

Grinding Stone - for rapid stock removal

DESCRIPTION	CODE	PRICE
355mm 150 grit grinding stone	1090040	£187.00

SiC Non adhesive grinding papers Suitable for use with the NEW GritFix product

PACK OF 100	200 mm		230 mm		250 mm		300 mm	
Abrasive papers NA P80	1313120	£34.00	1323120	£42.00	1333120	£57.00	1343120	£66.00
Abrasive papers NA P120	1313130	£31.00	1323130	£37.00	1333130	£44.00	1343130	£56.00
Abrasive papers NA P180	1313140	£28.00	1323140	£34.00	1333140	£40.00	1343140	£52.00
Abrasive papers NA P240	1313150	£28.00	1323150	£34.00	1333150	£40.00	1343150	£52.00
Abrasive papers NA P320	1313160	£28.00	1323160	£34.00	1333160	£40.00	1343160	£52.00
Abrasive papers NA P400	1313170	£28.00	1323170	£34.00	1333170	£40.00	1343170	£52.00
Abrasive papers NA P600	1313180	£28.00	1323180	£34.00	1333180	£40.00	1343180	£52.00
Abrasive papers NA P800	1313190	£28.00	1323190	£34.00	1333190	£40.00	1343190	£52.00
Abrasive papers NA P1200	1313210	£28.00	1323210	£34.00	1333210	£40.00	1343210	£52.00
Abrasive papers NA P2500	1315110	£56.00	1325110	£36.00	1335110	£79.00	1345110	£85.00
Abrasive papers NA P2400	1315100	£119.00	1325100	£131.00	1335100	£176.00	1345100	£215.00
Abrasive papers NA P4000	1315120	£119.00	1325120	£131.00	1335120	£176.00	1345120	£215.00

SiC adhesive grinding papers Also suitable for Xlam/Reflex/Gekko fixturing

PACK OF 100	200 mm		250 mm		300 mm		32 mm	
Abrasive papers PSA P80	1314120	£67.00	1334120	£102.00	1344120	£117.00	1350120	£19.00
Abrasive papers PSA P120	1314130	£56.00	1334130	£79.00	1344130	£105.00	1350130	£19.00
Abrasive papers PSA P180	1314140	£48.00	1334140	£68.00	1344140	£102.00	1350140	£19.00
Abrasive papers PSA P240	1314150	£48.00	1334150	£68.00	1344150	£102.00	1350150	£19.00
Abrasive papers PSA P320	1314160	£48.00	1334160	£68.00	1344160	£102.00	1350160	£19.00
Abrasive papers PSA P400	1314170	£48.00	1334170	£68.00	1344170	£102.00	1350170	£19.00
Abrasive papers PSA P600	1314180	£48.00	1334180	£68.00	1344180	£102.00	1350180	£19.00
Abrasive papers PSA P800	1314190	£48.00	1334190	£68.00	1344190	£102.00	1350190	£19.00
Abrasive papers PSA P1000	1314200	£48.00	1334200	£68.00	1344200	£102.00	-	-
Abrasive papers PSA P1200	1314210	£48.00	1334210	£68.00	1344210	£102.00	1350210	£19.00

SiC adhesive grinding papers PSA

PACK OF 100	200 mm		250 mm		300 mm	
Abrasive papers P2400	1316100	£170.00	1336100	£199.00	1346100	£317.00
Abrasive papers P4000	1316120	£170.00	1336120	£199.00	1346120	£340.00

ZrO2 grinding papers PSA P60 Grit

PACK OF 100	200 mm		250 mm		300 mm	
Zirconium Papers	-	-	-	-	1347110	£272.00

Spectrographic offers a selection of self-adhesive and magnetic/steel backed polishing cloths, monocrystalline and polycrystalline diamond compounds, suspensions and pastes.

Polishing cloth choice chart in micron size order

CIAR	Soft, micro-porous, chemical resistant low napped polymer pad. Excellent flatness and long durability
MAIA	Very soft flocked. Semi finishing and finishing of all materials. Diamond 3, 1 or 1/4 mic
TARA	Soft flocked, semi finishing and finishing of all materials. Diamond 6, 3 or 1 mic.
NAPP	Very soft, dense and short napped synthetic flock on a special synthetic layer, provides excellent flatness and long durability. 1-6 mic diamond.
ORLI	Medium hard woven wool, special synthetic barrier backing provides excellent flatness and long durability 1 - 6 mic diamond.
FLOCK	Soft, dense and medium napped synthetic flock on a foil. Provide excellent flatness and long durability 1 - 9 mic.
STEN	Medium hard satin woven acetate, special synthetic barrier backing provides excellent flatness and long durability 1 - 9 mic
POLI	Hard woven polyester, special synthetic barrier, excellent flatness and long durability. 1 - 9 mic diamond
IZAR	Hard, impregnated non-woven, special synthetic barrier backing provides excellent flatness and high material removal with short polishing times, long durability 3 - 15 mic diamond.
LUNA	Non woven, medium, hard and very hard. Diamond 15, 9, 6 and 3 mic
DURA	Anapless, hard-woven durable synthetic cloth that is extremely aggressive. For intermediate polishing of hard ferrous metals, ceramics, carbides and thermal spray coatings
NYLON	Napeless, Long lasting nylon cloth for rough and final polishing

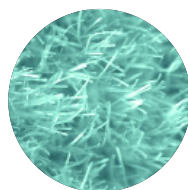
A wide variety of polishing cloths, with a variety of backing material, designed for convenience of use and to suit the application.

Pressure Sensitive Adhesive (PSA) backed Polishing Cloths

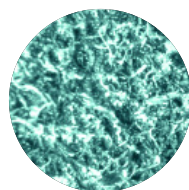
PSA backed polishing cloths come with peel back sheet to reveal an adhesive surface which sticks firmly to the platen.

Magnetic Disc Backed Cloths

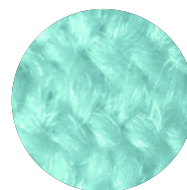
The magnetic attraction between the backing plate on the polishing cloth and the magnetic material on the platen forms the firm adhesion of cloth to the platen. The magnetic adhesion is strong enough for manual or automatic polishing.



Flock



Non woven



Woven

Polishing cloth discs self-adhesive – 5 per box

PACK OF 5	200 mm		250 mm		300 mm		32 mm	
	CIAR	1511101	£57.00	1511102	£89.00	1511103	£112.00	1551100
MAIA	1511201	£33.00	1511202	£41.00	1511203	£48.00	1551200	£23.00
IRIS	1511301	£23.00	1511302	£36.00	1511303	£43.00	-	-
TARA	1512101	£35.00	1512102	£42.00	1512103	£57.00	1552100	£23.00
NAPP	1512201	£29.00	1512202	£40.00	1512203	£54.00	-	-
ORLI	1512301	£57.00	1512302	£74.00	1512303	£91.00	-	-
FLOCK	1513101	£20.00	1513102	£32.00	1513103	£40.00	-	-
STEN	1513201	£25.00	1513202	£33.00	1513203	£43.00	1554100	£23.00
POLI	1513301	£28.00	1513302	£43.00	1513303	£63.00	-	-
IZAR	1514201	£29.00	1514202	£40.00	1514203	£54.00	-	-
LUNA	1514301	£37.00	1514302	£47.00	1514303	£68.00	-	-
DURA	1515101	£46.00	1515102	£62.00	1515103	£73.00	-	-
NYLON	1515201	£43.00	1515202	£52.00	1515203	£68.00	-	-

Polishing cloth discs, steel backed or magnetic – 5 per box Please ensure correct part number is chosen

PACK OF 5	200 mm			250 mm			300 mm		
	Steel	Magnet		Steel	Magnet		Steel	Magnet	
CIARPUL	1531101	1521101	£68.00	1531102	1521102	£104.00	1531103	1521103	£130.00
MAIAPUL	1531201	1521201	£47.00	1531202	1521202	£53.00	1531203	1521203	£66.00
IRISPUL	1531301	1521301	£36.00	1531302	1521302	£47.00	1531303	1521303	£62.00
TARAPUL	1532101	1522101	£47.00	1532102	1522102	£54.00	1532103	1522103	£72.00
NAPPUL	1532201	1522201	£40.00	1532202	1522202	£55.00	1532203	1522203	£71.00
ORLIPUL	1532301	1522301	£68.00	1532302	1522302	£89.00	1532303	1522303	£108.00
FLOCKPUL	1533101	1523101	£31.00	1533102	1523102	£47.00	1533103	1523103	£57.00
STENPUL	1533201	1523201	£36.00	1533202	1523202	£48.00	1533203	1523203	£61.00
POLIPUL	1533301	1523301	£47.00	1533302	1523302	£59.00	1533303	1523303	£79.00
IZARPUL	1534201	1524201	£40.00	1534202	1524202	£56.00	1534203	1524203	£71.00
LUNAPUL	1534301	1524301	£51.00	1534302	1524302	£61.00	1534303	1524303	£84.00
DURAPUL	1535101	1525101	£57.00	1535102	1525102	£75.00	1535103	1525103	£89.00
NYLONPUL	1535201	1525201	£50.00	1535202	1525202	£59.00	1535203	1525203	£77.00

DIAMOND COMPOUNDS

SUSPENSIONS, SPRAYS AND LUBRICATING FLUIDS

The three parameters used to characterise high quality diamond compounds and suspensions are: particle-shape, particle-size distribution range and average number of facets per diamond crystal.

Optimum particle shape leads to improved material life while the abundance of diamond facets leads to rapid material removal during grinding. A narrow particle size distribution improves the performance of the diamond for a given preparation protocol.

An improvement in the average number of cutting facets per particle is obtained by using polycrystalline diamond in place of monocrystal particles. This leads to higher material removal rates, improved surface finish and a minimum of subsurface deformation.

DIAMOND PASTE

Diamond paste comes in a syringe, which is used to dispense the paste onto the polishing/grinding platen. Available in 10g and 20g quantities, monocrystalline and polycrystalline forms.

Monocrystalline and Polycrystalline diamond compound in a syringe 10 or 20 grammes

MIC SIZE	Mono 10g		Mono 20g		Poly 10g		Poly 20g	
1/10	--	--	1610220	£45.00	1620120	£45.00	1621220	£79.00
1/4	1610130	£25.00	1610230	£45.00	1620130	£45.00	1621230	£77.00
1	1610150	£21.00	1610250	£39.00	1620150	£45.00	1621250	£79.00
3	1610160	£21.00	1610260	£39.00	1620160	£48.00	1621260	£87.00
6	1610170	£28.00	1610270	£45.00	1620170	£56.00	1621270	£102.00
9	1610180	£37.00	1610280	£59.00	1620180	£60.00	1621280	£111.00
15	1610190	£37.00	1610290	£59.00	1620190	£68.00	1621290	£116.00

Lubricating Fluids

	1 litre		5ltr		10 litre	
Water based lubricant	1651400	£22.00	1651500	£34.00	1651700	£63.00
Alcohol based lubricant	1653400	£18.00	1653600	£31.00	1653700	£63.00
Oil based lubricant	1652400	£21.00	--	--	1652700	£68.00

Colloidal silica

1ltr	1660400	£22.00
5ltr	1660600	£92.00

Alpha Alumina Deagglomerated 0.3 mic

1kg powder	1670840	£174.00
1ltr suspension	1690440	£77.00

Diamond suspensions (colour coded) automatically dosed onto the polishing cloth

A suspension of diamond particles in water, alcohol or oil soluble media is a simple way to dispense the diamond particles for polishing. Available in 500ml bottles fitted with a trigger spray to dispense the particles for polishing. Two grades of diamond are used – monocrystalline and polycrystalline.

Oil based suspensions are used where the use of water in a preparation method is not possible due to the sensitivity of the sample. The oil based products give a less

aggressive polishing or grinding action compared to water based suspensions.

Other abrasives, such as alumina (Al_2O_3), in a finely dispersed suspension form are used for final polishing beyond the scope of diamond materials. Alumina powder or colloidal silica (SiO_2) can also be used.

WATER BASED	OIL BASED	ALCOHOL BASED
MONO-WS	MONO-OS	-
POLY-WS	POLY-OS	POLY-VS

Diamond monocrystalline suspensions water, alcohol and oil based

MIC SIZE	Water				Alcohol		Oil	
	0.5ltr		2.5ltr		0.5ltr		0.5ltr	
1/10	1631320	£36.00	--	--	--	--	--	--
1/4	1631330	£36.00	1631530	£147.00	--	--	1632330	£40.00
1	1631350	£33.00	1631550	£142.00	--	--	1632350	£37.00
3	1631360	£33.00	1631560	£142.00	--	--	1632360	£37.00
6	1631370	£32.00	1631570	£142.00	--	--	1632370	£37.00
9	1631380	£39.00	1631580	£165.00	--	--	1632380	£42.00
15	1631390	£43.00	1631590	£179.00	--	--	1632390	£47.00
25	1631391	£48.00	--	--	--	--	--	--

Diamond polycrystalline suspensions water, alcohol and oil based

MIC SIZE	Water				Alcohol		Oil	
	0.5ltr		2.5ltr		0.5ltr		0.5ltr	
1/10	--	--	--	--	--	--	--	--
1/4	1641330	£66.00	--	--	1643330	£97.00	1642330	£70.00
1	1641350	£63.00	1641550	£272.00	1643350	£63.00	1642350	£91.00
3	1641360	£63.00	1641560	£272.00	1643360	£79.00	1642360	£91.00
6	1641370	£63.00	1641570	£289.00	1643370	£91.00	1642370	£91.00
9	1641380	£68.00	1641580	£289.00	1643380	£97.00	1642380	£94.00
15	1641390	£68.00	1641590	£289.00	1643390	£119.00	1642390	£94.00
25	1641391	£60.00	--	--	--	--	1642391	£94.00



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