

Kemet

Precision Lapping | Polishing | Cleaning | Materialography

METALLOGRAPHY AND PETROGRAPHY CONSUMABLES



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Kemet Metallography and Petrography Consumables

Since 1938, Kemet has been at the forefront of diamond abrasive technology, producing quality diamond pastes and suspensions in our purpose built laboratories. ISO 9001:2015 qualified, these products have become the preferred choice for metallurgists and now form a cornerstone to Kemet's well established metallographic sample preparation programme. In short, Kemet offer a one stop shop for all your cutting, mounting, grinding and polishing requirements at highly affordable prices. A comprehensive range of consumables, supplied from stock.

Now a truly international organisation, Kemet's activities span the world, spearheaded by our companies in nine countries, all sharing the same commitment to customer support. This, along with more than 80 years' experience in process development, means Kemet can provide you with a complete metallographic and spectrographic sample preparation system tailored exactly to your needs.

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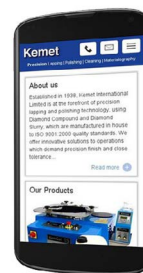
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Catalogue version: 2003



Free Process Development

Abrasive Cut-Off Wheels

Selecting the right cut-off wheel is important to ensure samples are not burned or distorted and can also save time and money.

The most commonly used abrasive cut off wheels are Silicon Carbide (for non-ferrous metals) and Aluminium Oxide (for ferrous metals)

Hard wheels are used for cutting soft materials while soft wheels are recommended for cutting harder materials.



Diameter (mm)	Arbor (mm)	Thickness (mm)	Abrasive Type	Recommended for cutting	Hardness	Code
250	32	1.6	Aluminium Oxide	Low carbon, mild and extra mild steels Treated steels with medium cross sections Case hardened steels	20-30 Rc 100-350 HV	590100
300	32	2.5	Aluminium Oxide			590101
350	32	2.5	Aluminium Oxide			590102
250	32	1.6	Aluminium Oxide	Treated steels Stainless steel Refractory steels Alloyed Cast Iron	40-55 Rc 300-600 HV	590103
300	32	2.5	Aluminium Oxide			590104
350	32	2.5	Aluminium Oxide			590105
250	32	1.6	Aluminium Oxide	Nickel based super alloys Carburised steels Treated steels with fragile coatings Hardened high carbon steels	40-65 Rc 300-600 HV	590106
300	32	2.5	Aluminium Oxide			590107
350	32	2.5	Aluminium Oxide			590108
250	32	1.8	Silicon Carbide	Non Ferrous materials Aluminium & Aluminium alloys Copper & copper alloys White, Grey and Spheroidal Cast Irons	30-350 HV	590109
300	32	2	Silicon Carbide			*
350	32	2.5	Silicon Carbide			*

* Available on request. Other sizes also available on request
All above are supplied in pack of 10

Diamond Cut-Off Wheels

Diamond cut-off wheels are available from 75-350mm diameters. Other sizes available on request. It is recommended that Kemet Cutting and Coolant Fluid be used with these wheels.



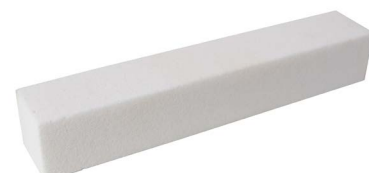
Type / Materials	Diameter (mm)	Thickness (mm)	Arbor (mm)	Code
High concentration Metal Bond for ferrous metals and medium / hard ceramics.	75	0.15	12.7	600017
	100	0.3	12.7	600018
	125	0.4	12.7	600019
	150	0.5	12.7	600026
	175	0.6	12.7	600028
	200	0.8	12.7	600029
Low concentration Metal Bond for ceramics, glass and geological samples.	75	0.15	12.7	600032
	100	0.3	12.7	600033
	125	0.4	12.7	600034
	150	0.5	12.7	600035
	175	0.6	12.7	600036
	200	0.8	12.7	600037

Type / Materials	Diameter (mm)	Thickness (mm)	Arbor (mm)	Code
Continuous Rim Diamond Cut off Wheels for Petrography.	100	0.4	12.7	600038
	150	1.0	12.7	600044
	200	1.35	12.7	600048
	250	1.35	32	600049
	300	1.6	32	600059
	350	2.4	32	600075

Kemet Dressing Stick

Used for cleaning resin and dirt particles from the diamond cut off wheels. Dimensions 1" x 1" x 6"

Product	Code
Dressing Stick	362240





Cutting and Coolant Fluid

Kemet Cutting and Coolant Fluid is a mineral oil-free, water-miscible cutting fluid that creates little foam, provides excellent corrosion protection and is completely free of nitrate, chlorine and zinc.

- Excellent wetting and cutting properties
- Prevents solubility of cobalt

Size	Code
5 Litre	600096

Replication Consumables



Product		Code	Replication sheets	
32mm rubber holders	Pack of 3	340724	Micron	150 x 100mm
Replication Tape 50 micron (38mm x 1.1m)	Each	343513	35	343511
			50	343512
			75	343499
			180	343498
32mm abrasive discs		32mm polishing pads		
Grit	Pack of 100	Type	Pack of 25	
80	362441	HS green	340722	
120	362442	HS blue	340725	
240	362443	MBL	341889	
400	362444			
600	362445			
1200	362472			

Mounting Moulds and Accessories

A wide range of mounting moulds which can be used in conjunction with all Kemet cold mounting resins.

- Teflon Mould - with detachable base (reusable)
- Rubber Mould - one piece (reusable)
- KM Acrylic Resin Mould - detachable aluminium base (non-reusable)

Moulds	Size (mm)	Quantity	Code
Rubber Moulds	55 x 30	Pk 5	600727
	70 x 40	Pk 5	600728
	100 x 50	Pk 5	600729
	ø25	Pk 5	600062
	ø30	Pk 5	600063
	ø40	Pk 5	600064
Teflon Moulds	ø20	Pk 5	600723
	ø25	Pk 5	600724
	ø30	Pk 5	600710
	ø40	Pk 5	600725
	ø50	Pk 5	600726
	ø25	Pk 50	600066
KM Acrylic Moulds (Acrylic with aluminium base)	ø30	Pk 50	600753

Accessories	Quantity	Code
Cups and stirrers	Pk 100	600058
250ml measuring cup & stirrer	Pk 5	600730
Stainless steel clips	Pk 100	600050
Plastic clips	Pk 100	600053
Silicon free mould release spray	500ml	600158



Cold Mounting Resins and Acrylics

The Kemet range of cold mounting resins includes acrylic and epoxy solutions. Cold mounting systems are particularly useful for delicate specimens that will not withstand the heat and pressure from a hot mounting press, and are also a good way of producing high volumes of mounted samples, with one mix producing a number of samples.

Type	Application	Cure Time	Shrinkage	Hardness	Colour	Mix Ratios	Shrinkage	Resin & Hardener Kit
KEP Epoxy	General purpose epoxy with very low shrinkage	10h at 25°C	Low	75 Shore D	Clear	2:1 by weight	Very low	600410
KEPT Epoxy	Porous materials, coatings and electronic components							600411
Acrylic CLB	Conductive resin by SEM applications (Conductivity - Good)	30 mins	Medium	62 Shore D	Black	8:5 by volume	Low	600827
Acrylic VLST	general purpose	10 mins	Low	90 Shore D	Clear	5:2 by volume	Very low	600702
Acrylic VLB	General purpose	10 mins	Low	90 Shore D	Green	2:1 by volume	Very low	600825
Acrylic VLK	Ideal for hard materials	15 mins	Very Low	96 Shore D	Blue	2:1 by volume	Very low	600691
Acrylic Green	Replication of sample surface	10 mins	N/A	87 Shore D	Green	2:1 by volume	-	600834
Kemset Transparent Dye	For creating a 'see-through' coloured finish	Overnight at room temperature or 3-4 hours at 35°C	-	-	Blue	2:1 by weight	20g	600415
			-	-	Yellow			600416
			-	-	Green			600417



Hot Mounting Resins

Hot embedding resins are extremely hard, acid-resistant and have low-shrinkage. They reduce sweating and guarantee clean edges when polishing. Hot embedding resins are divided into two categories:

- Thermoresistant (Phenolic or Allylic)
- Thermoplastic (Acrylic or Epoxy)

Type	Colour	Use	Size	Code
Phenolic	Black	Standard Examination of all Materials	2.5kg	600800
Phenolic	Black	Standard Examination of all Materials	25kg	600174
Phenolic	Green	Standard Examination of all Materials	2.5kg	600801
Phenolic	Green	Standard Examination of all Materials	10kg	600802
Phenolic	Red	Standard Examination of all Materials	2.5kg	600803
Phenolic	Red	Standard Examination of all Materials	10kg	600804
Phenolic	Brown	Standard Examination of all Materials	2.5kg	600805
Phenolic	White	Standard Examination of all Materials	2.5kg	600806
Phenolic with glass fibre	Black	Standard Examination of all Materials	2.5kg	600807
Conductive Acrylic Copper	Red/Brown	Electrically Conductive for SEM Examination	2.5kg	600809
Acrylic	Transparent	Standard Examination of all Materials	2.5kg	600810
Epoxy	Black	Examination of Edges	2.5kg	600811
Epoxy	Black	Examination of Edges	10kg	600812
Allylic with glass fibre	Blue	Examination of Edges	2.5kg	600813
Phenolic Carbon Conductive Resin	Black	Electrically Conductive for SEM Examination	2.5kg	600179
Melamine	Cream	Standard Examination of all Materials	1kg	600751
Melamine	Cream	Standard Examination of all Materials	7.5kg	600752

Diamond Grinding & Fine Grinding

Kemet diamond grinding and fine grinding/ polishing discs for use with its metallographic grinding and polishing machines offer:

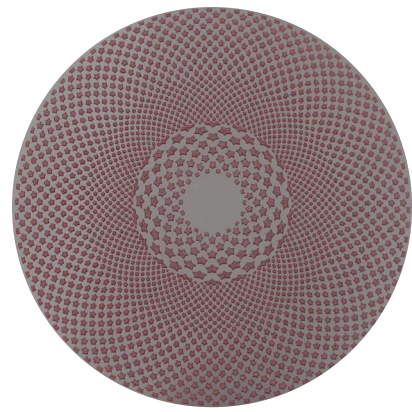
- High and consistent stock removal while achieving perfect flatness
- Maintain flatness while providing excellent surface finish
- Suitable for magnetic mounting
- Longevity

Diamond Grinding Discs			Ø Disc (mm)		
Grit	Micron	Colour	200	250	300
80	251	Red	343800	343806	343807
120	107	Yellow	343801	343808	343815
220	76	Green	343802	343809	343816
600	30	Blue/Black	343803	343810	343817
1200	15	Black	343804	343811	343818

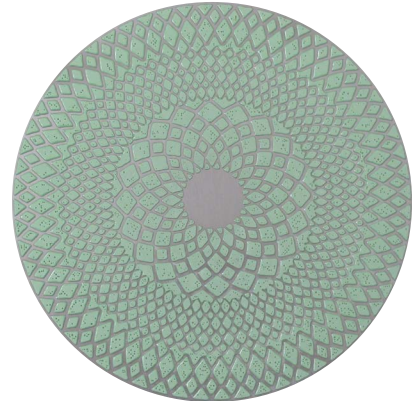
The fine grinding and diamond polishing discs are used in combination with Kemet liquid diamond.

Fine Grinding Discs		Ø Disc (mm)		
Use with	Colour	200	250	300
6-3µm	Green	343585	343587	343819

The discs are undressed. Please dress before use, and when grinding different materials to avoid cross contamination. **Failure to dress before use could cause deep scratches.** (see page 1 for Dressing Stick)



Diamond Grinding Disc



Fine Grinding Disc

Diamond Grinding - Diaflex

Kemet Diaflex is a self-adhesive, flexible diamond material which combines the long life and aggressive cutting action of diamond with the flexibility of cloth.

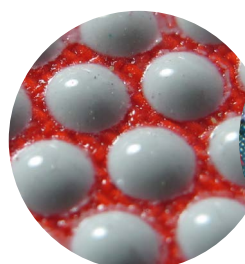
Supplied in either discs or squares, and in a wide range of grit sizes, the diamond is either nickel bonded (N) or resin bonded (R) and is ideal as a grinding step in either metallographic sample preparation or flat lapping. **Diaflex can also be supplied plain backed (Magnetic backed available on request).**



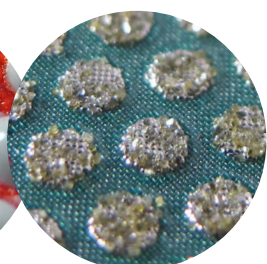
Diaflex Grinding Disc

Grade	Grit/Micron Size	Ø Disc (mm)					Square (mm)		
		150	200	230	250	300	100 x 100	150 x 150	300 x 300
Green (N)	60 / 250	342074	342025	342075	342076	342068	342011	342013	342048
Black (N)	120 / 125	342001	342002	342077	342026	342027	342014	342070	342049
Red (N)	200 / 74	342004	342005	342067	342028	342029	342016	342036	342050
Yellow (N)	400 / 40-50	342006	342007	342071	342030	342031	342018	342066	342051
White (N)	800 / 20-30	342032	342008	342072	342033	342034	342020	342037	342052
Yellow / White (R)	800 / 20-30	342078	342035	342079	342080	342047	342038	342044	342053
Blue (R)	1800 / 6-12	342042	342009	342073	342081	342084	342043	342021	342054
Orange (R)	12000 / 1-3	342069	342010	342082	342083	342085	342022	342023	342055

Close-up of resin bonded Diaflex



Close-up of nickel bonded Diaflex



Non-Adhesive Rolls and Papers

Grit FEPA	Met Papers	Met Discs			Met Rolls	
	230 x 275 mm	Ø 200 mm	Ø 250 mm	Ø 300 mm	75 mm x 50 m	100 mm x 50 m
60	-	342286	342297	342307	342221	342225
80	-	342246	342298	342308	342241	342333
100	-	-	-	-	342245	342226
120	-	342250	342299	342309	342331	342334
180	342201	342207	342300	342310	342242	342335
240	342219	342208	342301	342311	342213	342336
320	342202	342234	342302	342312	342222	342249
400	342203	342209	342238	342313	342214	342216
600	342204	342210	342303	342314	342215	342217
800	342235	342211	342304	342315	342224	342337
1000	342205	-	-	-	342244	342340
1200	342206	342212	342305	342316	342240	342218
2500	342339	342287	342306	342317	342332	342338
4000	-	342660	342661	342662	-	-

Met discs supplied in box of 100 & Met papers supplied in pack of 10

Non-adhesive silicon carbide water-proof abrasive discs, rolls and papers for the initial stages of preparation, available in a variety of sizes, dimensions and grits.

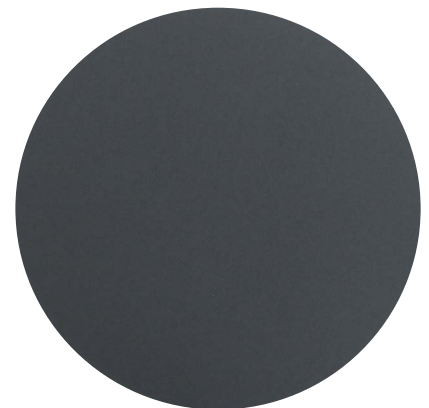


Self Adhesive Bramet N

Grit FEPA	Bramet Discs				Bramet Strips	
	Ø 150 mm	Ø 200 mm	Ø 250 mm	Ø 300 mm	75 x 275mm	305 x 305mm
60	342401	342412	342434	342445	-	-
80	342402	342413	342435	342446	342461	342472
100	-	-	-	-	-	-
120	342403	342414	342436	342447	342462	342473
180	342404	342415	342437	342448	-	-
240	342405	342416	342438	342449	342125	342164
320	342406	342417	342439	342450	342126	342476
400	342407	342418	342440	342451	342127	342477
600	342408	342419	342441	342452	342128	342478
800	342409	342420	342442	342453	342491	342479
1000	-	-	-	-	342133	342492
1200	342410	342421	342443	342454	342134	342480
2500	342411	342422	342444	342455	-	342481
4000	-	342456	342469	342465	-	-




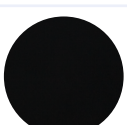
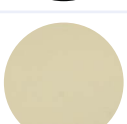
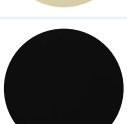
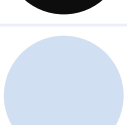


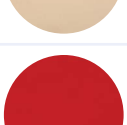
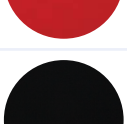
Bramet Discs supplied in box of 100 & Bramet Strips supplied in pack of 10

Easy peel off adhesive, waterproof silicon carbide papers. No need for clamping or gluing, saving time when changing grit sizes.



Kemet Polishing Pads

Flat polished surfaces on many softer materials can only be produced with polishing pads. Available to suit most grinder/polisher and flat lapping machines, Kemet offer the widest range of self-adhesive and metallic backed polishing pads. These are generally split into three types: Chemo-textile, Nap and Synthetic Silk

Name	Type	Description	Use with Recommended Diamond Micron size	Ø (mm) Supplied in pk of 10			Colour
				200	250	300	
PSU-M	Chemo-textile These are manufactured to the highest standards with accurately controlled uniform thickness. Self-adhesive, and available in medium (PSU-M) and hard (PAD-K) formats. Non-woven pads manufactured specially for polishing processes.	These medium and hard chemo-textile cloths are for smoothing and polishing operations.	15 micron and finer	341008	341009	341010	
PSU-MM (magnetic)				341811	341812	341813	
PAD-K		The ultra-hard chemo-textile cloth used where fast cutting is needed.	15 micron and finer	341017	341028	341039	
NSH-B	Nap Cloths For final polishing stages of preparation, Kemet Nap Type Cloths are available with a range of softness and nap length. They give a more gentle polish, and are ideal for softer specimens and components. All cloths are self-adhesive unless marked 'plain'. 	A short nap cloth with woven backing used for metallographic and some optical polishing operations.	3 micron and finer	341257	341246	341203	
NSH-BM (magnetic)				341263	341261	341262	
NLH		A longer, stiffer nap cloth.	6 micron and finer	341205	341247	341206	
NLH-M (magnetic)				341292	341293	341267	
CHEM-H		For use with a chemical mechanical polishing process with colloidal silica suspension.		341782	341783	341784	
Chem-HM (magnetic)				341861	341852	341853	
LIL-Plus		A long nap synthetic cloth.	3 micron and finer	341611	341610	341609	
Lil Plus-M (magnetic)				341289	341290	341291	
Selvyt SR		A cotton cloth of medium nap with a single pile. Available only as non-adhesive. For final polishing using diamond or fine alumina.		341302	341309	341311	
KAN		Wool based cloth for polishing ferrous and non-ferrous.	3 micron and finer	341076	341077	341070	
Kan-M (magnetic)	341294			341295	341072		
MRE	Synthetic flock on a flexible waterproof carrier. A more heavy duty cloth	6 micron and finer	341712	341716	341714		
MRE-M (magnetic)			341815	341816	341817		
MBL	Synthetic flock sprayed on cotton carrier. Used with 3 micron Kemet Diamond after 6 micron ASFL stage.		341722	341726	341724		

Other sizes available on request






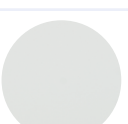
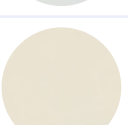
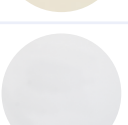
Metallographic Disc Storage Unit

Storage unit for protecting polishing pads, discs and cutting wheels with a diameter of up to 300mm

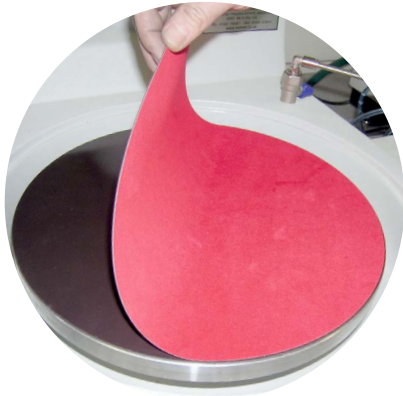
Dimensions - 320 x 251 x 332 mm (WxHxD)

Number of draws - 9

Product code - 363211

Name	Type	Description	Use with Recommended Diamond Micron size	Ø (mm) Supplied in pk of 10			Colour
				200	250	300	
ASFL	Synthetic Silk Durable woven structure, developed for finishing metal specimens and components.	Synthetic silk pad with durable woven structure for mirror finishing of most metals.	6 micron and finer	341148	341162	341111	
ASFL-M (magnetic)				341175	341176	341177	
MSFL		Will polish metal flat, and to a mirror finish.	3 micron and finer	341752	341754	341755	
MSR		Similar to MSFL with rigid plastic backing.	3 micron and finer	341702	341707	341704	
MST		An extra hard, rigid silk cloth for increased cutting action. Excellent pre-polishing Pad.	15 - 6 micron	341762	341764	341763	
ASR		Mounted on a rigid and heavy barrier foil.	3 micron and finer	341120	341119	341103	
AST		Used for increased cutting action and good general flatness control. Use with 15 - 6 Micron diamond before final polishing.		*	*	341279	
AST-M (magnetic)				341287	341288	341285	

* Available on request



Magnetic Polishing Pad Systems

The Kemet magnetic disc system is suitable for Kemet's range of magnetic polishing pads (marked 'magnetic' above), diamond grinding and fine grinding discs, and any magnetic consumable from other suppliers.

- Easy to change and cloths last longer
- No adhesive breakdown problems
- Faster and cleaner cloth changes
- No metal disc involved so safe to use

Magnetic Disc Size	Code
Ø 200 mm	345770
Ø 250 mm	345771
Ø 300 mm	345772



Diamond Lapping Film

Kemet diamond abrasive lapping film products are specifically engineered to meet all your ultra-fine, finishing requirements featuring precision coating to provide consistent polishing.

- Proprietary resin system improves adhesion to substrate
- Uniform 3 mil polyester film backing, ensures film flatness and improved part geometry
- Compatible with most machinery attachments and all coolants, allowing quick film replacement
- Pressure sensitive adhesive (PSA) backing

Micron	Ø 300 mm
0.5	362997
1	362998
3	363004
6	363002
9	363001
15	363000
30	362999

Kemet Fixing Systems

Kemet have a variety of mounting methods suitable for all types of grinding and polishing consumables.

	Kemtak	KMS Disc	Magnetic Disc	Paper Ring
Non- Adhesive	-	-	-	✓
Adhesive	✓	✓	✓	-
Magnetic	-	-	✓	-

Non-adhesive grinding papers:

Non-adhesive papers can be used with a paper holding ring. This clamps the papers in place, and allows for easy and fast changing. Paper rings are available to suit 200, 250, and 300mm diameter platens.

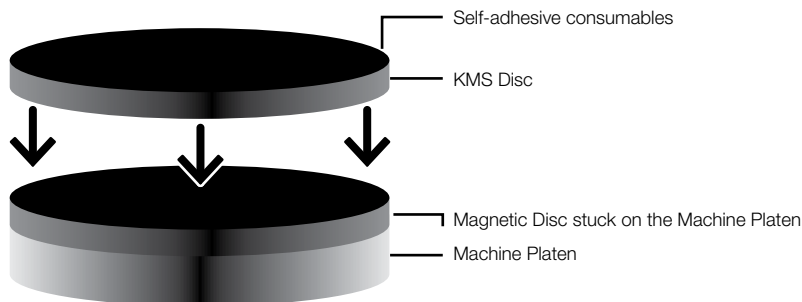
Paper Ring		
Ø 200 mm	Ø 250 mm	Ø 300 mm
345142	345132	345112

Self-adhesive Grinding and Polishing Consumables:

Self-adhesive consumables can be used in 3 different ways.

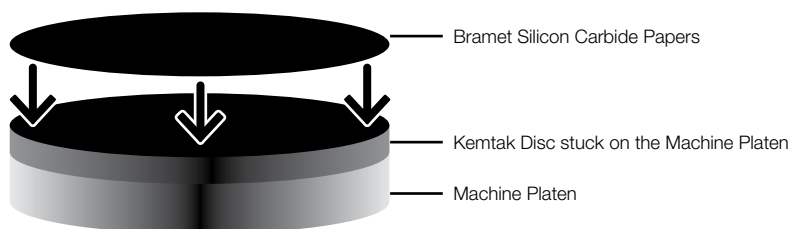
Option 1: The self-adhesive discs can be fixed directly to the platen.

Option 2: Self-adhesive grinding papers or polishing cloths can be mounted to a KMS disc (1mm thick stainless steel). These fix directly onto a machine platen when fitted with a magnetic disc. This allows easy change over from one consumable to another. Multiple KMS discs are needed to use this method in the most productive way. See pages 19-20 for polishing pads.



KMS Stainless Steel Disc		
Ø 200 mm	Ø 250 mm	Ø 300 mm
342560	342561	342562

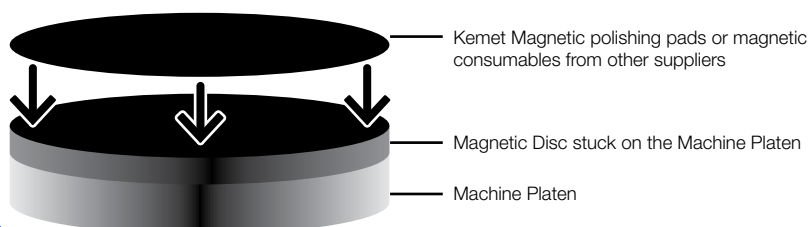
Option 3: All Kemetak discs can be used with Bramet self-adhesive grinding papers. The plastic barrier film on the Bramet disc grips the Kemetak non-skid surface so that the adhesive is not used. This makes for faster and cleaner change overs from one grit size to another. Kemetak discs can be supplied on a flexible magnetic backing (Kemetak-M), a solid thin metal backing (Kemetak-S), or PSA backed (Kemetak). Kemetak Plus has a mylar film with adhesive on both sides for sticking non-adhesive papers (Met Discs on page 21).



Kemetak Discs			
Type	Ø 200 mm	Ø 250 mm	Ø 300 mm
Kemetak-M	343706	343707	343708
Kemetak-S	343709	343710	343711
Kemetak	343700	343701	343702
Kemetak Plus	343720	343721	343722

Magnetic Grinding and Polishing Consumables:

Magnetic systems have become increasingly popular and the Kemet magnetic disc system includes a wide range of magnetic polishing pads, diamond grinding and fine grinding discs. See page 20 for magnetic system.



Magnetic Disc		
Ø 200 mm	Ø 250 mm	Ø 300 mm
345770	345771	345772

Diamond Suspension



Aquapol is the next generation of **water based** diamond suspensions for sample preparation. Available in monocrystalline (AquaPol-M) and polycrystalline (AquaPol-P). Aquapol is easy to clean and non-foaming.

Low viscosity, high concentration, **oil based** suspensions available in monocrystalline (Type OM) and polycrystalline (Type OP).

- Uniform suspension of diamond particles
- No agitation required
- Suitable for dispensing by Kemet Electronic Dispenser or alternative systems
- **ZERO** Volatile Organic Compounds (VOC*)
- Colour coded for easy identification
- Supplied in 400g bottles with trigger spray. Other sizes available

AquaPol-M			AquaPol-P			Type OM		Type OP	
Water Based Monocrystalline			Water Based Polycrystalline			Oil Based Monocrystalline		Oil Based Polycrystalline	
Micron	400g	1 Litre	Micron	400g	1 Litre	Micron	400g	Micron	400g
1/10	219471	219490	1/10	219472	219484	1/10	216321	1/10	216341
1/4	219459	219491	1/4	219461	219485	1/4	216323	1/4	216342
1/2	219457	219492	1/2	219463	219486	1/2	216322	1/2	216343
1	219450	219493	1	219452	219487	1	216324	1	216344
3	219440	219494	3	219453	219488	3	216326	3	216346
6	219448	219495	6	219454	219482	6	216328	6	216347
9	219442	219496	9	219455	219483	9	216329	9	216349
15	219444	219497	15	219456	219489	15	216331	15	216350
25	219446	219498				25	216332	25	216351
						45	216333		

Note to users of WM/WP suspensions - these are still available

Kemet offer a wide range of standard and special Diamond Products formulated and manufactured in our quality controlled laboratories in the UK to ISO 9001:2015 quality assurance standards. Each is a special blend of diamond powder with a specific grading and concentration in a chemical carrier to give the optimum:

- Stock removal and surface finish
- Ease of cleaning
- Temperature resistance
- Lubricity to prevent drying out

EasyPol - Diamond & Lubricant in a Single Application



Easypol is a diamond suspension and lubricant combination, resulting in faster and simpler metallographic sample preparation. These suspensions result in high stock removal, allowing preparation time to be reduced. The diamond suspension / lubricant combination ensures that the optimum ratio of diamonds and lubricant is predetermined, resulting in a quality polishing operation, first time and every time.

- Lower cost of consumables
- Reduction in preparation time
- Excellent and reproducible results
- Easy to use and clean
- Water based
- Also available in 2.5 and 5 litres

Micron	EasyPol (For routine metallographic sample preparation)			EasyPol+ (Special formula for reduced polishing times)		
	500ml	2.5 Litres	5 Litres	500ml	2.5 Litres	5 Litres
1/4	250600	-	-	-	-	-
1	250601	250621	250619	250606	250628	250613
3	250602	250618	250622	250607	250629	250614
6	250603	250623	250624	250608	250630	250615
9	250604	250625	250617	250609	250631	250616
15	250605	250626	250627	250610	250632	250633

* ZERO Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.

Diamond Suspension AP

Kemet Diamond Suspension AP is a high quality alcohol based polycrystalline diamond suspension. It is ideal for polishing specimens which cannot come into contact with water. It is supplied in 500ml containers. Other Micron sizes and packaging sizes are available upon request.

Micron	Size	Code
1	500 ml	250350
3	500 ml	250271
6	500 ml	250272



Liquid Diamond

Our range of Kemet Liquid Diamond products are available as oil soluble, water soluble or as emulsions. The chemical composition of the carrier fluids is carefully controlled to ensure that they are compatible with Kemet Lapping Plates, Kemet Polishing Cloths and the components/samples being lapped/polished.

- Precision graded diamond particles in a fluid
- Optimum viscosity and chemical composition of each Liquid Diamond Product gives fast stock removal with the ability to produce superfine surface finishes
- Suitable for dispensing with all Kemet Dispensing Systems, eliminating wastage and reducing lapping costs
- Specially formulated Liquid Diamond Products enable parts to be easily cleaned



Diamond Compound

Type CM

Standard grade high concentration containing Monocrystalline Diamond Powder (Water soluble).

Type CP

Premier grade high concentration containing Polycrystalline Diamond Powder particular recommended for polishing ceramics sintered materials and composites (Water soluble).

TYPE CM				TYPE CP		
Micron	5g Applikator	10g Syringe	20g Syringe	5g Applikator	10g Syringe	20g Syringe
1/10	115000	115040	115010	115020	115050	115030
1/4	115001	115041	115011	115021	115051	115031
1/2	115002	115042	115012	115022	115052	115032
1	115003	115043	115013	115023	115053	115033
3	115004	115044	115014	115024	115054	115034
6	115005	115045	115015	115025	115055	115035
9	115006	115046	115016	115026	115056	115036
15	115007	115047	115017	115027	115057	115037
25	115008	115048	115018			
45	115009	115049	115019			



Diamond Spray

Water soluble spray manufactured from Polycrystalline or Monocrystalline Diamond Powder. Supplied in 100g Pump Spray Dispenser.

Micron	Monocrystalline	Polycrystalline
1/10	116000	-
1/4	116001	116036
1/2	116002	-
1	116003	116037
3	116004	116038
6	116005	116039
9	116006	116040
15	116007	116041



Diamond Stick

Water soluble stick diamond compound, manufactured from Polycrystalline or Monocrystalline Diamond Powder.

- Eliminating the need for spatulas or manual application
- Allows easy application of Diamond Compound
- Supplied in 10g Applicator Stick

Micron	Monocrystalline	Polycrystalline
1/4	113188	113200
1	113189	113201
3	113190	113202
6	113191	113203
8	113192	-
14	113193	-



Lubricating Fluids

- Assists Kemet Diamond Products to cut and polish more effectively by absorbing frictional heat and diluting the lapping residue
- Lubricant performance remains stable even when under high pressure
- Manufactured from high purity chemicals



Type	Description	Soluble in	Colour	450ml Trigger spray	1 Litre	2.5 Litres	5 Litres
Blue	Improves cutting and polishing performance on cloths or plates.	Water	Blue	301200	301158	301156	301159
GW2	For use with Kemet Diamond Suspension, particularly when used with Kemet Lapping Plates.	Water	Light green	301514	301105	301108	301107
R OS2	For use where water is not permitted.	Oil	Red	301513	301511	301512	301141
W9	Recommended for use with Aquapol Diamond Suspensions. *ZERO VOC's.	Water	Clear	-	-	301527	-

Polishing Abrasives

Kemet offer a wide range of conventional polishing abrasives.



Alumina Powders for polishing most materials			
Micron	Use	Size	Code
Gamma 0.04	Super finishing of soft metals such as copper, lead, aluminium	1kg	600251
Alpha 0.3	Final polishing of copper alloys, nickel, brass, bronze, aluminium	1kg	600252
Alpha 1.0	Fine pre-polishing of all metals	1kg	600253

Alumina Suspensions for special applications				
Description	Micron	Use	Size	Code
Alumina Suspension No.1	0 - 1	Steel & Hard metals	1 Litre	600711
Alumina Suspension No.2	0 - 0.7	Semi-hard metals	1 Litre	600712
Alumina Suspension No.3	0 - 0.3	Soft metals	1 Litre	600713
Alumina Suspension	0.05	Soft metals	1 Litre	343591
Kemox SF - Aluminium Oxide	Mirror polishing of aluminium		1 Litre	300207
			3.8 Litre	300200
			5 Litre	300199

Colloidal Silica - Col-K

A Liquid polish used on Kemet Chem-H Cloth to produce the ultimate in high quality mirror polishes on polishing machines. A part abrasive, part chemical polishing action makes Col-K well suited to polishing difficult materials such as Stellite and Cobalt Chrome. Also available in a non crystallising version called Kemet Col-K (NC). 0.09 micron particle size.

Unit	Col-K	Col-K (NC)
1 Litre	600262	600261
5 Litres	600212	600199
20 Litres	600204	600202



* ZERO Volatile Organic Compounds (VOC) - not classified as an atmospheric pollutant and offer health and safety benefits. VOCs are organic chemicals that have a high vapour pressure at ordinary room temperature, some of which can be dangerous to human health and/or cause harm to the environment.

Kemet Light-Industrial Ultrasonic Cleaners for Precision Cleaning



Top of the range digital generator operates piezo-ceramic transducer elements giving a powerful cleaning effect. The Booster function, for extra power, can be used for the most difficult cleaning tasks. Distribution of the ultrasonic energy is achieved by the frequency sweep to give precision cleaning throughout the tank. All models are equipped with thermostatically controlled heating to ensure optimum cleaning temperature.

Manufactured from DIN 304 stainless steel, both internally and externally, they are easy to keep clean and hygienic. A drip protector guides any unwanted water droplets away from the operating panel and the internal control circuitry is protected against water splash.

Features

- Tank made from stainless steel (DIN 304)
- High quality stainless steel mesh basket
- Boost, Sweep and Degassing function
- Easy setting of time, temperature and special functions
- Dry run heating protection and automatic switch off after 12 hours of operation
- Glass beaker system available for cleaning small parts



Technical information	Kemet 3	Kemet 6	Kemet 12	Kemet 30	Kemet 45
Tank service volume (l)	1.9	4.3	9	20.6	45
Internal tank dimensions (mm)	240 x 137 x 100	300 x 150 x 150	300 x 240 x 200	505 x 300 x 200	500 x 300 x 300
Internal basket dimensions (mm)	198 x 106 x 50	255 x 115 x 75	250 x 190 x 115	455 x 250 x 115	455 x 270 x 194
External dimensions (mm)	300 x 179 x 214	365 x 186 x 264	365 x 278 x 321	568 x 340 x 321	615 x 370 x 467
Ultrasonic power nom/peak (W)	80/160	150/300	200/400	300/600	400
Ultrasonic frequency (kHz)	38	38	38	38	38
Heating power (W)	200	400	800	1200	1600
Voltage	230V - single phase - 50Hz				
Product Code	359480	359482	359484	359486	359488
Accessories Available	Kemet 3	Kemet 6	Kemet 12	Kemet 30	Kemet 45
Plastic lid	✓	✓	✓	✓	
Stainless steel lid					✓
Stainless steel basket	✓	✓	✓	✓	✓
Lid/beaker holder	✓	✓	✓	✓	
Set: lid/beaker holder, 2 beaker glasses 600ml with lid and rubber rings	✓				
Beaker Ø 95 mm, 600 ml	✓	✓			
Beaker Ø 95 mm, 1000 ml	✓	✓			

Ultrasonic Cleaning Fluids

With more than 300 high performance formulations, providing a solution to most cleaning challenges. The finest in biodegradable cleaning fluids, these specially formulated concentrated detergents are available in neutral, alkaline and acid types.

The detergents work by reducing surface tension, intensifying ultrasonic cavitation, and dissolving and binding the contaminants that have been loosened by the ultrasonics.

- Free consultations and trials to adapt formulations to specific requirements and optimise cleaning processes
- Environmentally aware process development to offer ecological solutions
- Compatible with Kemet range of ultrasonic cleaners
- Physiochemical and physical wastewater treatment systems to comply with environmental legislation

Kemet recommend that any cleaning fluid should be tested on a sample of the component to be cleaned to ensure it does not damage the material and offer free trials to establish the optimum process.

For a full list of ultrasonic cleaners and cleaning fluids visit www.kemet-cleaning.co.uk or Kemet Cleaning catalogue



Dasty Industrial Degreaser

This product is extremely effective for thoroughly degreasing all mechanical parts as well as large surfaces and perfect for cleaning off lapping residue. Thanks to its ultra-concentrated formula, Dasty easily removes grease, mineral oil, scale, etc. and is biodegradable, safe for shipping and contains no ozone depleting chemicals.

Size	Code
1 Litre	362936
Box of 12	362962

Manual Cleaning Solutions

C70 Solvent Cleaning Fluid

A versatile and highly efficient cleaning and degreasing fluid with a fast evaporation rate for removing grease, oil and residues from all metals and ceramics. Supplied in a pressurised container, complete with detachable extended spray tube for reaching into the most difficult areas, C70 contains **NO** ozone depleting substances.

Size	Container	Code
500ml	Aerosol	302114
500ml	Aerosols (Pk 12)	302115



CO - 42 Cleaning Fluid

Designed for cold use and applied by spray, brush, cloth or full immersion, CO42 is a highly efficient degreasing fluid similar in performance to 1.1.1 Trichloroethane, but without the ozone depleting properties.

Size	Container	Code
450ml	Trigger Spray	302103
5 Litres	Metal	302102
25 Litres	Metal	302101
200 Litres	Metal	302105

- C70 and CO-42 are **NOT** approved for use at elevated temperatures or in ultrasonic cleaning machines.



Technical Support

Our expertise is available to you through our in-house technical specialists, a team of 5 Technical Representatives in the UK, and an extensive network of overseas Subsidiary Companies and Distributors.

Kemet provide continuous technical support for both prospective and current customers, and to ensure that any problems are correctly and quickly resolved.

Tailor-made training courses are delivered regularly in our Technical Centre or at customers' premises.

Process Development

We regularly assist customers by developing new products and processes, utilising the very latest in metallographic sample preparation. Customers' samples are evaluated, free-of-charge. Comprehensive reports are issued covering all aspects of the process. Here are some of the materials we are able to process:

Acrylic	Cast iron	Gold	Silicon Carbide
Alloys	Ceramic	Graphite	Sintered Materials
Alumina	Chrome Plate	Inconel (Cobalt/Nickel)	Stainless steel
Aluminium	Cobalt Chrome	Keronite (ceramic)	Steel
Aluminium Nitride	Compact Disc	Molybdenum	Steel (Hard)
Anodised Aluminium	Concrete Cement	Nimonic Steel	Titanium
Beryllium Copper	Copper	Nickel	Tool Steel
Bone	Epoxy Resin	Plastic	Toughened Steel
Boron Carbide	Ferrite	Polyethermide	Tungsten carbide
Brass	Fibre Optic	Quartz	Tungsten Copper
Bronze	Gallium Arsenide	Sapphire	Vulcanised Fibre
Carbon	Germanium	Silicon	Zinc Selenide
Carbon Fibre	Glass	Silicon Aluminium Alloy	Zirconate (Lead) Titanate

All processed samples are returned with detailed technical process reports, **free of charge**.



Kemet



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