

# Kemet

## DIAMOND PRODUCTS



Kemet Diamond Products and Lapping Plates are manufactured by **Kemet International Ltd** whose quality system is registered by BSI. BSI Certificate of Registration No. Q 05919  
BS EN ISO 9002 : 1994

## Kemet Diamond Products

A wide range of standard and special Diamond Products formulated and manufactured in our quality controlled laboratories. Each Kemet Diamond Product 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.



We use only the best quality virgin Diamond Powder and high purity chemicals in Kemet Diamond Products.

Most Kemet products are biodegradable.

- ◆ **Diamond Grading** - The exceptionally close grading standards developed by us exceed many international standards and guarantee Kemet Diamond Products are manufactured to the closest tolerances.
- ◆ **Quality Control** - Microscopic and computer analysis of the Diamond Powder ensures that it is exactly the correct grading and shape to maximise cutting performance.
- ◆ **Consistency of Performance** - Manufactured to BS EN ISO 9002 Quality Assurance standards. Our guarantee that the quality will be consistent.
- ◆ **User Friendly** - Manufactured from high purity chemicals - safe to use and friendly to the environment.

## Special Products

With changing technology, new Diamond Products are continually being developed to meet specific requirements. These products may well incorporate different types of Diamond to suit the application, e.g. Synthetic Monocrystalline, Polycrystalline or Natural Powder, suspended in unique chemical carriers. Our laboratories are available to help and develop formulations specific to your needs.

KEMET DIAMOND COMPOUNDS		
Micron Size	Mesh	Colour
0.1	140,000*	
0.25	25,000*	
1	14,000*	
3	8,000*	
6	3,000*	
8	1,800*	
14	1,200*	
25	600	
45	300	
60	230	
90	170	

\*Estimated



### Type KD Diamond Compound

- ◆ Worldwide - The preferred choice.
- ◆ Universal Diamond Compound for rapid stock removal and superfine surface finish.
- ◆ Soluble in both oil and water.
- ◆ Recommended for Toolroom and Precision Production applications.



TYPE KD DIAMOND COMPOUND						
	Micron	Grade	Colour	5g AppliKator	20g Syringe	10g Stick
				Code	Code	Code
FINAL POLISHING	1/10	1/10 - KD - C1	Grey	111001	111094	111181
		1/10 - KD - C2		111002	111095	
	1/4	1/4 - KD - C1	Grey	111003	111096	111182
		1/4 - KD - C2		111004	111097	
	1	1 - KD - C1	Blue	111005	111098	111183
		1 - KD - C2		111006	111099	
		1 - KD - C3		111007	111100	
	3	3 - KD - C1	Green	111008	111101	111184
		3 - KD - C2		111009	111102	
		3 - KD - C3		111010	111103	
		3 - KD - C4		111011	111104	
	LAPPING & PREPOLISHING	6	6 - KD - C1	Yellow	111012	111105
6 - KD - C2			111013		111106	
6 - KD - C3			111014		111107	
8		8 - KD - C1	Red	111015	111108	111186
		8 - KD - C2		111016	111109	
		8 - KD - C3		111017	111110	
		8 - KD - C4		111018	111111	
14		14 - KD - C1	Brown	111019	111112	111187
		14 - KD - C2		111020	111113	
		14 - KD - C3		111021	111114	
RAPID STOCK REMOVAL	25	25 - KD - C1	Mahogany	111022	111115	111188
		25 - KD - C2		111023	111116	
		25 - KD - C3		111024	111117	
	45	45 - KD - C1	Purple	111025	111118	111189
		45 - KD - C2		111026	111119	
		45 - KD - C3		111027	111120	
	60	60 - KD - C1	Orange	111028	111121	111190
		60 - KD - C2		111029	111122	
	90	90 - KD - C1	White	111030	111123	-
		90 - KD - C2		111031	111124	

The **AppliKator** (shown above) is a syringe designed to accurately meter out quantities of Kemet Diamond Compound, preventing waste and contamination.

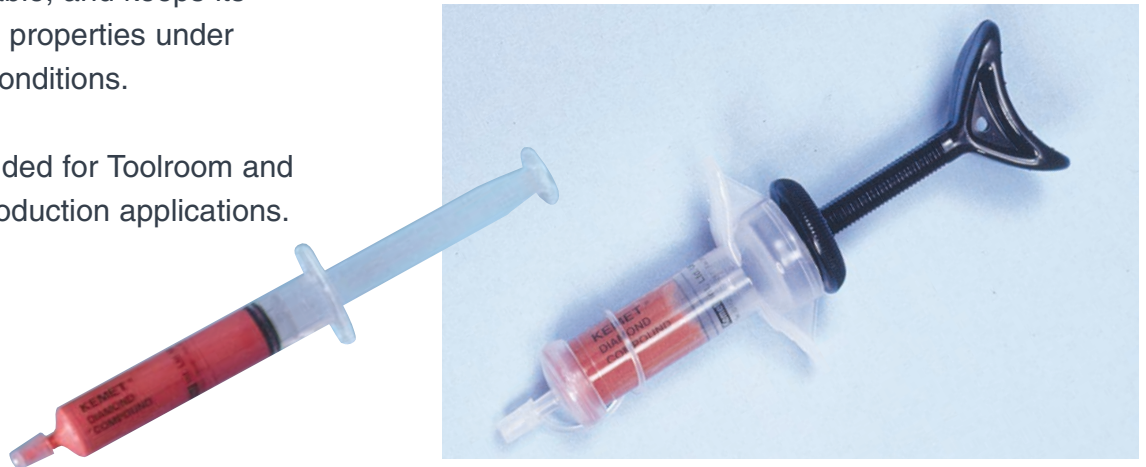
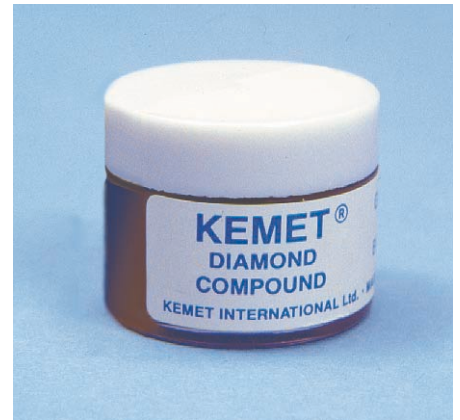


Kemet produces special Diamond Compound formulations in its laboratories to suit specific customer requirements.

Each micron size is available in a range of concentrations:- (C1 lowest concentration; C4 highest concentration).

### Type L Diamond Compound

- ◆ Oil Soluble Diamond Compound specially developed for use on hard materials such as Tungsten Carbide, hardened Steels and Ceramics.
- ◆ High thermal stability of the chemical carrier ensures that Kemet Diamond Compound resists frictional heat, remains stable, and keeps its suspension properties under operating conditions.
- ◆ Recommended for Toolroom and General Production applications.



TYPE L DIAMOND COMPOUND						
	Micron	Grade	Colour	5g AppliKator	5g Dip Jar	20g Syringe
				Code	Code	Code
FINAL POLISHING	1	1 - L - C1	Blue	112001	112018	112052
		1 - L - C2		112002	112019	112053
	3	3 - L - C1	Green	112003	112020	112054
		3 - L - C2		112004	112021	112055
LAPPING & PREPOLISHING	6	6 - L - C1	Yellow	112005	112022	112143
		6 - L - C2		112006	112023	112138
	8	8 - L - C1	Red	112007	112024	112058
		8 - L - C2		112008	112025	112059
	14	14 - L - C1	Brown	112009	112026	112060
		14 - L - C2		112010	112027	112061
RAPID STOCK REMOVAL	25	25 - L - C1	Mahogany	112011	112028	112062
		25 - L - C2		112012	112029	112063
	45	45 - L - C1	Purple	112013	112030	112064
		45 - L - C2		112014	112031	112065
		45 - L - C3		112015	112032	112066
	60	60 - L - C1	Orange	112016	112033	112067
	90	90 - L - C1	White	112017	112034	112068

Each micron size is available in a range of concentrations:- (C1 lowest concentration; C3 highest concentration).

Kemet produces special Diamond Compound formulations in its laboratories to suit specific customer requirements.

### Type W Diamond Compound

- ◆ Water Soluble Diamond Compound.
- ◆ Recommended for precision engineering and electronic applications where water based products are preferred.
- ◆ Ideal for use on polishing cloths.



TYPE W DIAMOND COMPOUND						
	Micron	Grade	Colour	5g AppliKator	20g Syringe	10g Stick
				Code	Code	Code
FINAL POLISHING	1/10	1/10 - W - C1	Grey	113001	113094	113170
		1/10 - W - C2		113002	113095	
	1/4	1/4 - W - C1	Grey	113003	113096	113171
		1/4 - W - C2		113004	113097	
	1	1 - W - C1	Blue	113005	113098	113173
		1 - W - C2		113006	113100	
		1 - W - C3		113007	113099	
	3	3 - W - C1	Green	113008	113101	113174
		3 - W - C2		113009	113102	
		3 - W - C3		113010	113103	
		3 - W - C4		113011	113104	
	LAPPING & PREPOLISHING	6	6 - W - C1	Yellow	113012	113105
6 - W - C2			113013		113106	
6 - W - C3			113014		113107	
8		8 - W - C1	Red	113015	113108	113176
		8 - W - C2		113016	113109	
		8 - W - C3		113017	113110	
		8 - W - C4		113018	113111	
14		14 - W - C1	Brown	113019	113112	113178
		14 - W - C2		113020	113113	
		14 - W - C3		113021	113165	
RAPID STOCK REMOVAL	25	25 - W - C1	Mahogany	113022	113115	113179
		25 - W - C2		113023	113116	
		25 - W - C3		113024	113166	
	45	45 - W - C1	Purple	113025	113118	113182
		45 - W - C2		113026	113119	
		45 - W - C3		113027	113120	
	60	60 - W - C1	Orange	113028	113121	113180
		60 - W - C2		113029	113122	
	90	90 - W - C1	White	113030	113123	-
		90 - W - C2		113031	113124	



Water soluble, stick Diamond Compound manufactured with Monocrystalline Diamond Powder. Allows easy application of Diamond Compound to Lapping and Polishing Discs eliminating the need for spatulas or manual application.

Each micron size is available in a range of concentrations:- (C1 lowest concentration; C4 highest concentration).

### 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 both with the Lapping Plate and the components being lapped.

- ◆ 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 the Kemet Electronic Dispensing System thus eliminating wastage and reducing lapping costs.
- ◆ Specially formulated Liquid Diamond Products enable parts to be easily cleaned.



TYPE K LIQUID DIAMOND							
An excellent, general purpose, low viscosity oil/water emulsion suitable for most applications.							
	Type-Micron	400g			2000g		
		Standard Code	Strong Code	Extra Strong Code	Standard Code	Strong Code	Extra Strong Code
<b>A</b>	K-1/10	211001	211021	211041	211080	211102	211121
	K-1/4	211002	211022	211042	211081	211103	211122
	K-1/2	211003	211023	211043	211083	211104	211123
	K-1	211004	211024	211044	211084	211105	211124
	K-2	211005	211025	211045	211082	211101	211125
	K-3	211006	211026	211046	211086	211106	211126
	K-4.5	211007	211027	211047	211087	211107	211127
<b>B</b>	K-6	211008	211028	211054	211088	211108	211128
	K-8	211009	211029	211049	211089	211109	211129
	K-10	211010	211030	211050	211085	211110	211130
	K-14	211011	211031	211051	211091	211111	211131
<b>C</b>	K-25	211012	211032	211052	211092	211112	211133
	K-45	211013	211033	211053	211093	211113	211134
<b>A = Final Polishing    B = Lapping &amp; Prepolishing    C = Rapid Stock Removal</b>							

Kemet Liquid Diamond Products are normally supplied colourless.

Special Diamond Suspensions with Monocrystalline, Polycrystalline or Natural Diamond can be supplied to suit specific applications.

### TYPE WA LIQUID DIAMOND

Water soluble Liquid Diamond, recommended where lapping/polishing must be carried out in the absence of oil based materials.

	Type-Micron	400g			2000g		
		Standard	Strong	Extra Strong	Standard	Strong	Extra Strong
		Code	Code	Code	Code	Code	Code
<b>A</b>	WA-1/10	214001	214021	214042	214071	214102	214121
	WA-1/4	214002	214022	214043	214072	214104	214122
	WA-1/2	214003	214023	214044	214073	214105	214123
	WA-1	214004	214024	214045	214074	214106	214124
	WA-2	214005	214026	214046	214075	214107	214125
	WA-3	214006	214027	214047	214076	214108	214126
	WA-4.5	214007	214025	214048	214077	214109	214127
<b>B</b>	WA-6	214008	214028	214049	214078	214080	214128
	WA-8	214009	214029	214050	214081	214101	214129
	WA-10	214010	214030	214051	214082	214110	214130
	WA-14	214011	214031	214052	214083	214079	214131
<b>C</b>	WA-25	214012	214032	214053	214084	214103	214132
	WA-45	214013	214033	214054	214085	214111	214133

**A** = Final Polishing    **B** = Lapping & Prepolishing    **C** = Rapid Stock Removal

### TYPE O LIQUID DIAMOND

Low viscosity oil soluble Liquid Diamond with enhanced cleaning properties.

	Type-Micron	400g			2000g		
		Standard	Strong	Extra Strong	Standard	Strong	Extra Strong
		Code	Code	Code	Code	Code	Code
<b>A</b>	O-1/10	216001	216021	216041	216082	216102	216132
	O-1/4	216002	216022	216042	216083	216103	216133
	O-1/2	216003	216023	216043	216084	216114	216134
	O-1	216004	216024	216044	216085	216104	216135
	O-2	216005	216025	216045	216081	216105	216136
	O-3	216006	216026	216046	216086	216106	216137
	O-4.5	216007	216027	216047	216087	216108	216138
<b>B</b>	O-6	216008	216028	216048	216088	216107	216139
	O-8	216009	216029	216049	216089	216109	216140
	O-10	216010	216030	216050	216093	216110	216141
	O-14	216011	216031	216051	216092	216111	216142
<b>C</b>	O-25	216012	216032	216052	216090	216112	216143
	O-45	216013	216033	216053	216094	216113	216144

**A** = Final Polishing    **B** = Lapping & Prepolishing    **C** = Rapid Stock Removal

### Kemet 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.



LUBRICATING FLUIDS					
Type	Colour	Soluble in	450ml Trigger Spray	2.5 litres	25 litres
			Code	Code	Code
W	Clear	Water	301201	301101	-
W2	Yellow	Water	301202	301102	301205
OS	Blue	Oil	301203	301103	301112
LS	Blue	Oil/Water	301204	301104	-
K	Clear	Oil	-	301124	301125

LUBRICATING FLUIDS		
W	Water	A low viscosity water based fluid developed for use with types KD and W Kemet Diamond Compound. Recommended for use on all Kemet Polishing Cloths as it helps to extend their life.
W2	Water	A low viscosity water based fluid developed for use with Kemet Diamond Suspension, particularly when being used on Kemet Plates.
OS	Oil	A low viscosity oil based lubricant primarily for use with Kemet Diamond Compounds such as types KD and L. Recommended when polishing tooling, moulds and similar components.
LS	Oil/Water	An alternative to OS Fluid soluble in oil and emulsifiable in water. For use with Kemet Diamond Compounds and Liquid Diamond, particularly where components need to undergo a water based cleaning operation after lapping.
K	Oil	For use with Kemet Liquid Diamond on Kemet Flat Lapping Systems. Assists smooth running of the lapping operation and helps to ensure a cleaner process.

For particular advice on which Kemet product to use for your application, please contact our Technical Support Department at Maidstone, or your local Kemet Technical Representative.

## Kemet

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The details shown are correct at time of printing, Kemet International Ltd reserve the right to alter or modify the specification of their products without prior notification.