

Lapping Consumables

Kemet Composite Lapping Plates

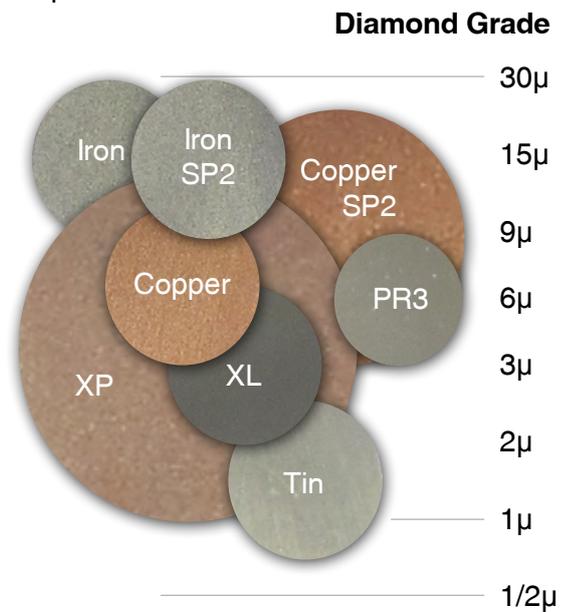
Manufactured from a homogeneous mixture of synthetic resins, metal particles and key bonding/hardening. The plates are designed for Kemet's advanced lapping technology, perfectly compatible with Kemet Liquid Diamond.

- Holds diamond particles firmly, ensuring both efficient stock removal and repetitive component surface finish.
- Ductile qualities cushion the diamond particles, preventing damage to the workpiece.
- Produced in varying hardness values so that even the softest material can be safely lapped with diamond particles without the fear of impregnation.
- Easy control for optimum flatness.
- Lapping/polishing plates available to fit all makes of lapping machines with plate diameters up to 3000mm.
- Dissipates heat and prevents laminar flow of lapped surfaces.
- Supplied with a cast iron backing plate for maximum stability.
- Recommended when high precision flatness and surface finish are required.

Composite Material	Plate Diameter (inches)			
	15	20	24	36
Kemet Copper	351102	351103	351106	351124
Kemet Copper SP2	351159	351964	351177	351965
Kemet Iron	351002	351081	351006	351010
Kemet PR3	351340	351374	351357	351343
Kemet Tin	351305	351320	351306	351315
Kemet XL	351356	351375	351376	351377
Kemet XP	351202	351266	351206	351227

Custom sizes and grooving are available.

Composite Material	Description
Kemet Iron	The most commonly used plate. For general purpose stock removal and lapping operations.
Kemet Iron SP2	For stock removal and lapping operations on harder and heavier components.
Kemet Copper	Used to lap softer materials where fine lapping and polishing are the primary requirements.
Kemet Copper SP2	Can be used for lapping or polishing hard and medium hardness materials.
Kemet PR3	Used to generate highly reflective surface finish. Ideal for pre-pad polishing for minimum roll off.
Kemet XL	Replacement for Lead/Tin plate, used for mirror polishing.
Kemet XP	Gives improved flat polished surfaces on many materials. Flat mirror-like surfaces can be produced on many hard materials.
Kemet Tin	One of the softest Kemet Plates used for mirror polishing with fine grades of Kemet Liquid Diamond.



Lapping Plate Grooving

Lapping plates can be supplied grooved to suit specific applications. A cross hatched pattern is common on Cast Iron Hand Lapping plates and Dual Face Machine plates and gives increased stock removal rates due to the additional cutting edges generated on each groove. A Spiral groove pattern is used primarily when polishing parts that need to have a good surface finish and flatness, allowing contamination to be carried away from the cutting surface and making it easier to keep the lapping plate contact surface flat. The edges of the groove maintain good stock removal even through the diamond particle size may be small.

Annular Grooved Plates

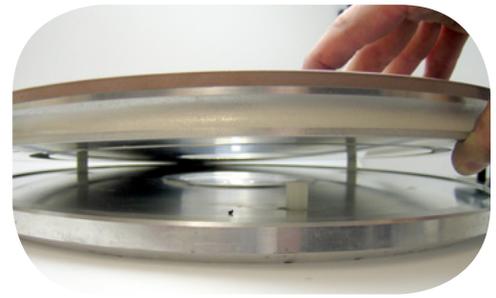
These plates are designed for precision shoulder lapping of a wide range of parts, such as fuel pump gear faces and pressure relief valve caps. These are bespoke manufactured and the groove width and depth of plates need to be specified when ordering.



Lift Off Disc System

Suitable for multistage processing when workshop space is a premium or budget constraints only allow a single machine. Lift Off Discs, for the Kemet 15 Lapping Machine are supplied mounted on an aluminium backing plate, which locates on to an aluminium drive plate by means of three pegs. Lift Off Discs can be easily changed and are recommended for light duty work where general flatness and precision finish are required.

Description	15"
Kemet Iron Lift Off Disc	351025
Kemet Copper Lift Off Disc	351121
Kemet XP Lift Off Disc	351226
Kemet Tin Lift Off Disc	351314
Aluminium Lift Off Disc	361001
Aluminium Drive Plate	361002



Kemet Composite Lapping Rods

For use with Kemet's diamond compounds, Kemet composite rods are manufactured from a homogeneous mix of synthetic resins, metal particles and other materials. Produced in a variety of hardness values, the softest materials can be safely lapped with Kemet Diamond compound. They are commonly used to improve the surface quality of parts previously lapped using Kemet Helilaps.

Type	Diameter Size (mm)		
	25x150	50x150	75x150
Kemet Iron	352101	352102	352103
Kemet Copper	352104	352105	352106
Kemet XP	352113	352108	352114
Kemet Tin	352107	352116	352163



Cast Iron Lapping Plates

Kemet offer a wide range of cast iron lapping plates to suit most lapping machines. (Other sizes available on request)

Cast Iron Lapping Plates (Pre-lapped)	Plate Diameter (inches)			
	15	20	24	36
Serrated	362400	362402	362404	362406
Solid	362401	362403	362405	362407



Conditioning Rings

Cast Iron Conditioning Rings available as solid or serrated. Replacements are available to fit most flat lapping machine models. Custom built diamond plated conditioning rings available in a variety of Grit sizes, including Grit 60 and Grit 120. Plastic faced and ceramic faced conditioning rings are also available and these are used for polishing rather than lapping operations.

Lapping Machine	Solid (ci)		Serrated (ci)	
	3 Ring	4 Ring	3 Ring	4 Ring
Kemet 15	360204	-	360203	-
Kemet 20	360818	-	361027	-
Kemet 24	360679	360680	360208	360274
Kemet 36	360186	360681	360278	360682
Kemet 40	*	*	360683	*
Kemet 48	360662	360235	360833	360642

* Available on request



Kemet offer a refacing service when the Kemet Composite material falls below 3mm thickness.