



LAPPING FILM

PSI Lapping Film, manufactured by the 3M Company, is available from PSI in 2 minerals, 11 micron grades and 2 backings. The precision 3 mil thick polyester substrate is color coded for easy grade identification. PSI packages all Lapping Film in re-sealable bags to help prevent product contamination. Lapping Film is available in a wide variety of sheets and discs, designed to fit popular polishing equipment or for polishing by hand applications.



Silicon Carbide Lapping Film is the most aggressive non-diamond product. SiC Lapping Film will remove material rapidly, leaving a consistent scratch pattern easily removed with successive polishing steps. Frequently used as a first step product in 15 or 30 micron grades, SiC Lapping Film will quickly remove and flatten the sample/part in preparation for subsequent polishing steps. Because of the relatively deep scratches made by SiC Lapping Film, it is not used as a step following Aluminum Oxide Lapping Film. Grades available in SiC Lapping Film include 3, 5, 9, 15 and 30 micron.

Aluminum Oxide Lapping Film is less aggressive than SiC Lapping Film, but is available in more and finer grades. Al₂O₃ Lapping Film is used as the only product for polishing many metals, and as a final polish on some harder materials. Al₂O₃ Lapping Film is available in .05, .3, 1, 3, 5, 9, 12, 30, and 60 micron.

All PSI Lapping Film is available with either a Plain Back (PB) or with a Pressure Sensitive Adhesive (PSA) backing. Which backing to use is determined by the polishing equipment available, or, in the case of polishing by hand, by user preference.

AVAILABLE LAPPING FILM GRADES		
Grade	SiC	Al ₂ O ₃
60 μ		White
40 μ		Dark Blue
30 μ	Dark Green	Green
15 μ	Gray	
12 μ		Yellow
9 μ	Gray	Blue
5 μ	Gray	Brown
3 μ	Gray	Pink
1 μ		Lavender
.3 μ		White
.05 μ		Pale Yellow

When polishing by hand, a few drops of water (distilled and/or filtered) is used to "adhere" the film to the platen, granite slab, or glass plate. Additional water is used on the Lapping Film surface as a lubricant. The part is moved over the surface in a "figure 8" pattern. Only relatively light pressure is required. The parts should be rinsed thoroughly between Lapping Film grades.

When mechanical polishing is used, follow the manufacturer's instructions, with the following tips in mind. Be sure the polishing substrate is clean before application of the Lapping Film discs. Any surface contamination will force the film out of plane, causing scratches. If the adhesive will not release easily after use, try a hot air gun (or hair dryer) to heat the film and plate. This will usually allow the film to release easily.

PSI maintains a large and varied inventory of Lapping Film. If you do not see the size, shape or mineral you require, please call us.