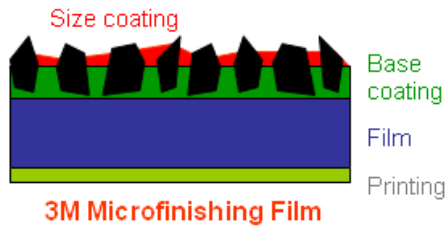




DIAMOND MICROFINISHING FILM

Diamond Microfinishing Film Abrasives (DMFF), from PSI, are a new tool available for hard-to-grind applications. DMFF products, manufactured by the 3M Company, can replace traditional coarse abrasive films commonly used on superfinishing equipment. Designed especially for fast finish reduction on hard materials, DMFF rolls allow target finishes to be achieved in fewer passes for greater productivity. With DMFF, superfinishing times can be cut in half or more, compared to traditional diamond honing stones and coarser diamond lapping film.

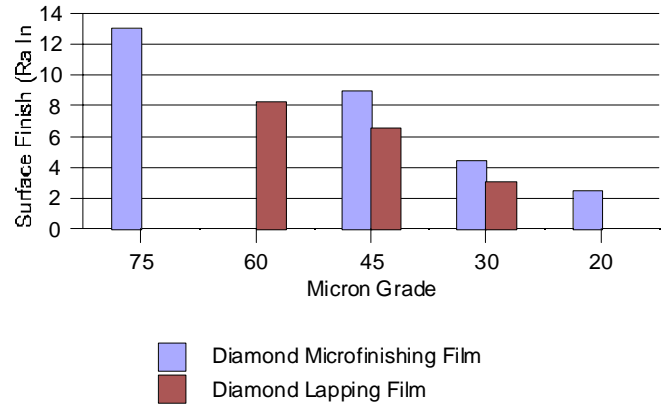


Excellent finish is achieved by the precision grading system used to select the diamond abrasive particles for each grade. Classified by the more accurate micron grading system, particle size grading is held to much tighter tolerances than conventional abrasive products. This results in a higher density of the specified particle size available to do the grinding required. This controlled uniformity of particle size, combined with electrostatic coating of the polyester film backing, provides an unexcelled grinding product.

Product consistency is achieved and maintained through the grinding steps by the consistent 5 mil caliper of the dense, polyester backing. Unlike the traditional paper products, the abrasive particles cannot "recede" into the backing. This feature results in shorter grind times and longer life because the abrasive particles remain at the "cutting" interface. Shorter grind times mean less heat generation in the material being ground. Longer life means improved economics.

When a finer finish is required, Diamond Lapping Film can be used due to its ability to polish the most difficult hard and mixed hardness materials quickly, without pull-out and with incredible results.

Superfinishing Comparison



If your work can benefit from a more consistent finish combined with shorter grinding cycles and longer abrasive life, you should consider Diamond Microfinishing Film Abrasives from PSI for your superfinishing needs. Please contact PSI for further information or to receive a quote.

Test Conditions			
Machine	2" GEM Superfinisher	RPM/SFPM	210/250
Film Sed	1"/min (30 on gauge)	Traverse Rate	12"/min
Roller Hardness	65 Shore A	Workpiece	WC Co Cr Thermal Spray
Roller Force	25 lbs/inch (30 psi on gauge)	Diameter	4.5"

Custom sizes are readily available upon request.



DMFA GRADE COMPARISON CHART			
Micron	Color	ANSI(U.S.)	FEPA(European)
125	Orange	120	120
74	Teal	200	200
45	Yellow	280	320
30	Green	400	600
20	Beige	500	1000
9	Blue	1200	2000