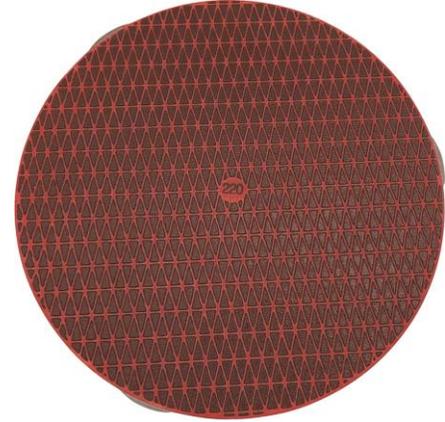


Dia-Grid RIGID Discs

Date: 06/2020, v1.1

Resin bond Dia-Grid RIGID discs are recommended for hard-to-grind materials. They feature diamond particles in raised patterns provide increased cutting rates, enhanced cooling and efficient removal of debris. They are extremely durable, and provide excellent edge retention and sample flatness. Wide, low-profile tabs along the perimeter of the disc allow easy removal after use.



Dia-Grid RIGID discs are available with magnetic or adhesive backing. Magnetic back disc item numbers end in "M."

Warning!

- Do not start platen rotation until the disc is firmly fastened to the platen.
- Keep hands, fingers and body parts away from moving edges to avoid injury.
- **Turn off platen rotation** and wait for the platen to completely stop before attaching or removing the Dia-Grid RIGID disc.

Grade	8" (200mm)	10" (250mm)	12" (300 mm)
120 Grit	50-70805M	50-71005M	50-71205M
	50-70805	50-71005	50-71205
220 Grit	50-70810M	50-71010M	50-71210M
	50-70810	50-71010	50-71210
600 Grit (P-1200)	50-70820M	50-71020M	50-71220M
	50-70820	50-71020	50-71220

Life Expectancy

Product life will vary depending upon factors such as frequency of use, size and type of samples, and the number of samples being ground. White wear indicators will appear when the diamond is completely worn from each segment; the disc should be replaced once the indicators appear.

Cleaning

Clean Dia-Grid RIGID discs by applying water and soap to the surface; for more aggressive cleaning, scrub the disc with a stiff non-metallic brush. After cleaning, it is recommended to spin-dry the disc to remove most of the water from the surface before storing it.

Usage Guidelines

Upon initial use, the Dia-Grid RIGID disc will take about 6-10 minutes of operation before grinding at its highest efficiency.

Only water should be used for grinding; the use of any other lubricants may produce undesirable effects. Allied High Tech Products assumes no responsibility for damages resulting from misuse.

The optimal material removal rate is achieved at 300 RPM with an applied force of 6-8 lbf (27-36 N) for each 1.25" (32 mm) \varnothing mount. Samples that take up more area of the mount may require greater forces to maintain efficiency.

Dressing

It is normal for the encapsulating resin and/or sample debris to build up and clog the diamond abrasive (Figure 1), reducing its effectiveness and diminishing its capability to remove material at the same rate after numerous cycles. A white, aluminum oxide dressing stick (# 60-20108) is supplied with each disc to remove build up. Contact Allied to purchase a replacement dressing stick.

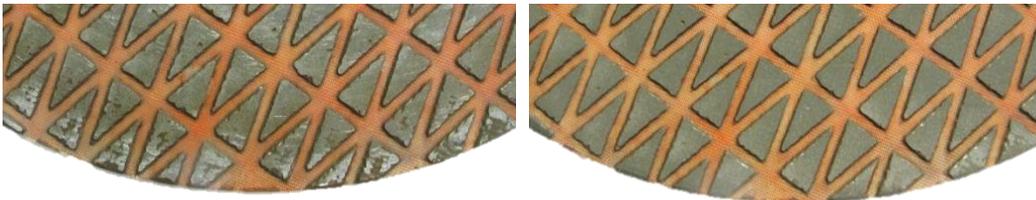


Figure 1: Left: Debris buildup on diamond segments Right: Same location after dressing

1. Prior to use, soak the dressing stick in water for 3 minutes.
2. Fasten a Dia-Grid RIGID disc to a platen.
3. **Keep hands clear** of the edges of the disc and activate clockwise platen rotation at 100-200 RPM. Turn on flowing water as a lubricant.
4. Using both hands, hold the dressing stick lengthwise and apply firm pressure to the side of the disc that rotates away from the user. Simultaneously, move it from the center to the edge of the disc (Figure 2). Dressing times depend upon the elapsed time between dressing operations.
5. Stop the platen completely. Then remove and wash the disc thoroughly to remove the dislodged debris and aluminum oxide particles. For more aggressive cleaning, scrub the disc with a non-metallic brush.

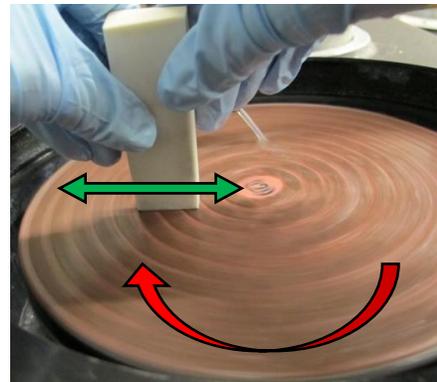


Figure 2: Apply the dressing stick to the side of the disc that rotates away from the user. Simultaneously move it from the center to the edge of the disc.