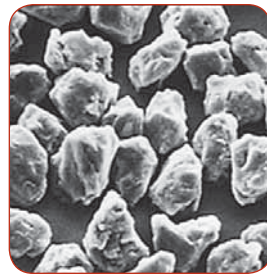


Diamond Polishing

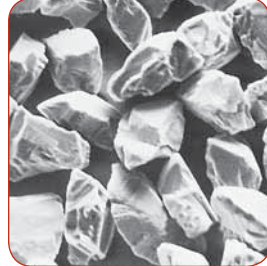
Diamond is preferred for most polishing applications when compared with other abrasives. Although diamond is more costly per unit, the amount required to polish is substantially less by a greater factor than the difference in price in most cases. Diamond also cuts faster, requiring less time to achieve an improved surface finish and produce a more accurate representation of microstructure with fewer artifacts (smearing, scratches, etc.). All products are precision graded (using Swiss micronizing standards) for high performance.

Diamond Compounds

Allied diamond compounds are specifically formulated for metallographic sample preparation and offer a higher concentration of diamond compared with suspensions. They are water soluble and compatible with glycol or alcohol based lubricants. Diamond compounds are typically used as a stand alone product or as a "base" before applying diamond suspension to polishing cloths.



Polycrystalline Diamond



Monocrystalline Diamond

Polycrystalline Diamond has many more cutting surfaces per particle, resulting in higher removal rates. As it cuts, it breaks down in its original shape, allowing for finer finishes in less time than when using monocrystalline diamond. Because polycrystalline has no cleavage planes, it cannot splinter like monocrystalline diamond. It causes less sub-surface deformation, and is excellent when polishing samples composed of different materials/hardness.

Monocrystalline Diamond provides a cost effective means for good stock removal and finish. It has a slightly irregular shape with multiple cutting edges, and is recommended for general applications where polycrystalline's features are not required.



Polycrystalline

Monocrystalline

5 Gram	18 Gram	Micron (µm)	5 Gram	18 Gram
90-21055-S	90-20995-S	0.05	-	-
90-21060-S	90-21000-S	0.10	-	-
90-21065-S	90-21005-S	0.25	90-21065	90-21005
90-21070-S	90-21010-S	0.50	90-21070	90-21010
90-21075-S	90-21015-S	1	90-21075	90-21015
90-21080-S	90-21020-S	3	90-21080	90-21020
90-21085-S	90-21025-S	6	90-21085	90-21025
90-21090-S	90-21030-S	9	90-21090	90-21030
90-21095-S	90-21035-S	15	90-21095	90-21035
90-21100-S	90-21040-S	30	90-21100	90-21040
-	-	45	90-21105	90-21045