

PUREON

SPARKLING soft diamond compounds

Product range



The right diamond compound for every application

Solubility

The solubility depends on the carrier. Water- and alcohol-soluble carriers ensure easy cleaning, whereas oil-based carriers prevent corrosion.

Diamond type

The diamond type greatly influences the performance of the diamond compound. Polycrystalline diamond (DP) has an amorphous structure with no cleavage planes and provides higher rates of material removal. Monocrystalline diamond (MSY) is relatively inexpensive in production and therefore widely used for grinding, lapping, and polishing applications.

Compound type	SPARKLING U/M	SPARKLING U/P	SPARKLING U/M-F	SPARKLING O/M	SPARKLING O/P	SPARKLING D/M	SPARKLING W/M	SPARKLING W/P
Solubility	Oil-water-alcohol	Oil-water-alcohol	Oil-water-alcohol	Oil	Oil	Oil	Water	Water
Diamond type	MSY monocrystalline	DP polycrystalline	MSY monocrystalline	MSY monocrystalline	DP polycrystalline	MSY monocrystalline	MSY monocrystalline	DP polycrystalline
Diamond concentration	High	High	High	High	High	Extra high	High	High
Color	Natural	Natural	Natural	Natural	Natural	Natural	Natural	Natural
Packaging	Syringe	Syringe	Syringe	Syringe	Syringe	Syringe	Syringe	Syringe
Packing unit in grams	10, 20	10, 20	10, 20	10, 20	10, 20	10, 20	10, 20	10, 20
Consistency	Soft	Hard	Extra soft	Extra hard	Extra hard	Extra hard	Hard	Hard
Diamond grit size in micron	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30
Application	Universal compound for polishing of molded components and other surfaces	Universal compound for premium finishing and polishing of smaller molded components and other surfaces	Universal compound for pre-polishing of medium and large molded components and other surfaces	Corrosion-free polishing of many materials. For automated and manual polishing processes	Corrosion-free polishing and premium finishing of smaller components. For automated and manual polishing processes	Corrosion-free polishing of medium or large components or rollers. For automated and manual polishing processes	For polishing as well as automated and manual polishing processes	Polishing of smaller components. For automated and manual polishing processes or premium finishing
Heat-resistant	Yes	Yes						
Materials	For many materials	For many materials	For many materials	For many materials	For many materials	For many materials	Nonferrous alloys and HSS steels	Nonferrous alloys, HSS steels and hard metals
Lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With lubricant	With or without lubricant	With or without lubricant

Diamond concentration

Material removal rate and thus processing time depend on diamond concentration. A high diamond concentration guarantees optimal processing results.

Grading

The particle size distribution has a direct influence on surface quality as well as removal rate in lapping and polishing applications. Precision grading with narrow particle size distribution ensures a high performance and allows to fine-tune the diamond size in order to meet surface roughness specifications.

SPARKLING ALU/M	SPARKLING OW/M	SPARKLING WSH/M	SPARKLING FAS/M	SPARKLING FAS/P	Basic U/M	Basic FAS/M	SPARKLING BUP/M	SPARKLING OPT/XP	SPARKLING ST/M
Water	Water	Water	Oil-alcohol	Oil-alcohol	Oil-water-alcohol	Oil-alcohol	Oil-alcohol	Water	Oil-alcohol
MSY monocrystalline	MSY monocrystalline	MSY monocrystalline	MSY monocrystalline	DP polycrystalline	MONO-ECO monocrystalline	MONO-ECO monocrystalline	MSY monocrystalline	XP nanocluster	MSY monocrystalline
Extra high	Extra high	Medium	Extra high	Extra high	Medium	Medium	Medium	Extra high	Medium
Natural	Natural	Natural	Natural	Natural	Color depending on grit size	Color depending on grit size	Natural	Natural	Natural
Syringe	Syringe	Syringe	Syringe	Syringe	Syringe with cartridge	Syringe with cartridge	Jar	Syringe	Stick
10, 20	10, 20	10, 20	10, 20	10, 20	10, 20, 280	10, 20, 280	400, 1000	10, 20	10
Extra hard	Extra soft	Extra soft	Soft	Hard	Hard	Soft	Extra soft	Hard	Extra hard
0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30, 45, 70, 90	0.25, 1, 3, 6, 9, 15, 20, 30	1, 3, 6, 9, 15, 20, 30, 45, 70, 90	1, 3, 6, 9, 15, 20, 30, 45, 70, 90	3, 6, 9	0.25 – 1, 1 – 3	1, 3, 6, 9, 15, 30
High-gloss polishing of components. For automated and manual polishing processes	Polishing of medium or large components. For automated and manual polishing processes	Polishing of very big components. For automated and manual polishing processes	Corrosion-free polishing. For automated and manual polishing processes	Corrosion-free polishing. For automated and manual polishing processes	Universal diamond compound for the polishing of molded parts and other surfaces	Corrosion-free polishing. For automated and manual polishing processes	Deburring of cutting tools or polishing of surfaces	Fine polishing of optical lenses and prisms, for automated and manual polishing processes	Manual polishing ¹ . Easy handling
	yes	yes							
Aluminum	Nonferrous alloys and HSS steels	Nonferrous alloys and HSS steels	All steels	All coated steels	For many materials	All steels		Optical lenses and prisms	For many materials
With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	With or without lubricant	Without lubricant	Small amount of water-based lubricant Yellow-S	With or without lubricant

All information is non-binding and provided for information purposes only. Subject to change without notice.

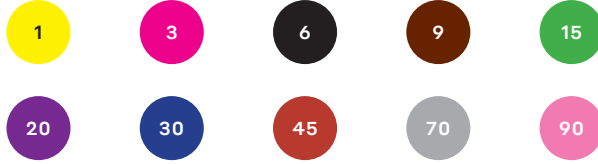
Contact

sales@pureon.com
www.pureon.com

Packing

Customer-specific sizes and colored compounds on request.

Color dots according to grit size in micron



Best results are achieved if diamond type and size are carefully matched with process requirements.

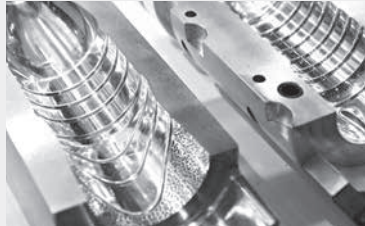
Diamond type selection

Polycrystalline diamond is best-suited for lapping and polishing of both extremely hard and soft materials. Thanks to its unique characteristics, maximum material removal rates and superior surface quality are achieved. Monocrystalline synthetic diamond is relatively inexpensive to produce and therefore widely used for grinding, lapping, and polishing applications. Natural diamond is the preferred choice for the production of diamond tools. Nanocluster diamond is a nano-material used in a variety of applications and research projects.

Selecting the right diamond size

The choice of diamond size is determined by the surface quality requirements, or respectively, by the function of the surface coating. Precision-graded diamond guarantees the highest performance and reproducibility levels and allows the diamond size to be fine-tuned to suit the application. Pureon diamond compounds are marked with color dots depending on the grit size. Pureon has extensive know-how and will be happy to advise you in the selection of the best product for your application.

Diamond compound applications



Mold making

Metal molds for bottles



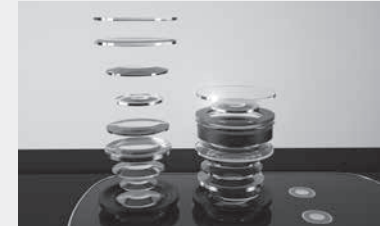
Tool making

Dental drills



Automotive

Car lighting



Optics

Optical lenses