

PUREON

Lapping and polishing slurries



Oil-based diamond suspension

SPO



Suspensions are available in customer-tailored formulations in a wide range of viscosities, diamond types, grit sizes and concentrations.



Diamond suspensions are used with various lapping and polishing pads. We are happy to assist you in finding the best suitable products.

Diamond suspension for standard lapping and sapphire

Oil-based ready-to-use diamond suspension for highest performance in lapping and polishing of sapphire, ceramics and metals. Tailored additives provide maximum material removal rate (MRR) while extending the process window for best performance. SPO diamond suspensions feature up to 25 % higher material removal rate compared to other oil suspensions. Novel stabilizers prevent precipitation of the diamond particles and thus help to enhance process stability. For application in machines with stirring units the suspension is available without stabilizers.

Properties

Carrier liquidoil-based
 Typical applicationlapping and polishing of sapphire, ceramics and metals
 Typical lapping platemetal lapping plate
 Density0.8-0.9 g/cm³
 Shelf life2 years

Suspension type	Viscosity	Stability	Remarks
SPOT-42	12 cP	stabilized	only for diamond size < 1 µm
SPO-42	30 cP	stabilized	
SPO-45	4 cP	easy-shake	
SPO-410	300 cP	stabilized	

Order example

SPO-42/25 MSY 0.75-1.25 micron
Quantity 5 ltr
Packing unit 1 ltr

Packing

Bottles 1 ltr, 2.5 ltr
Containers 5 ltr, 10 ltr
If not specified,
1 liter bottles are filled.

Units

Liter (ltr)

Contact

sales@pureon.com
www.pureon.com/sales-contacts

Order information

Example product code SPO-42/25 DP 5.5-8 micron
① ② ③

- ① Suspension type**
- ② Diamond concentration cts/ltr**
- ③ Diamond type/size**

SPO highlights

- Highly tailor-made: select any diamond type, grit size and concentration.
- User-friendly thanks to stabilized formulation.
- High removal rate due to tailored additives.
- Good lubrication.
- Tight particle size distribution.



Additional types and sizes for customized specifications can be found on www.puron.com/products/overview

Examples

Suspension type/diamond concentration

Suspension type	Diamond concentration ¹	Diamond concentration ¹	Diamond concentration ¹
	Low 15 cts/ltr	Medium 25 cts/ltr	High 50 cts/ltr
SPOT-42	SPOT-42/15	SPOT-42/25	SPOT-42/50
SPO-42	SPO-42/15	SPO-42/25	SPO-42/50
SPO-45	SPO-45/15	SPO-45/25	SPO-45/50
SPO-410	SPO-410/15	SPO-410/25	SPO-410/50

¹ Other diamond concentrations between 10 and 500 cts/ltr available.

Diamond type/size

Diamond grit size	Polycrystalline diamond ²	Monocrystalline diamond ²
0.25 micron	DP 0.25-0.5 micron	MSY 0.25-0.5 micron
0.5 micron	DP 0.25-0.75 micron	MSY 0.25-0.75 micron
1 micron	DP 0.75-1.25 micron	MSY 0.75-1.25 micron
3 micron	DP 2.5-4 micron	MSY 2.5-4 micron
6 micron	DP 5.5-8 micron	MSY 5.5-8 micron
9 micron	DP 8-12 micron	MSY 8-12 micron
15 micron	DP 10-20 micron	MSY 10-20 micron
30 micron	DP 20-30 micron	MSY 20-40 micron

² Other diamond types /sizes available.