



### 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

Oil-based diamond suspension

## SPO

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.

### Typical lapping plate

metal lapping plate

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	



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.



Pureon offers a wide range of customized solutions. Get in touch with us.

**Product specifications**

Carrier liquid ..... oil-based  
 Typical lapping plate ..... metal lapping plate  
 Density ..... 0.8 – 0.9 g/cm<sup>3</sup>  
 Shelf life ..... 2 years

**Order information**

Order code ..... SPO-410/25 DP 1.5 – 2.5 micron  
 Packing ..... Bottles 1ltr, 2.5ltr, Containers 5ltr, 10ltr  
 If not specified, 1liter bottles are filled.  
 Units ..... Liter [ltr]

**Examples**

**Suspension type/diamond concentration**

Suspension type	Diamond concentration <sup>1</sup> Low 15 cts/ltr	Diamond concentration <sup>1</sup> Medium 25 cts/ltr	Diamond concentration <sup>1</sup> 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

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

**Diamond type/size**

Diamond grit size	Polycrystalline diamond <sup>2</sup>	Monocrystalline diamond <sup>2</sup>
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

<sup>2</sup> Other diamond types/sizes available.

**Contact**

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