

Highlights

- Suitable for materials in the optics industry (e.g. CaF₂, ZnSe, Si, Ge, GaAs, etc.)
- Very good lifetime and economy compared to competition
- Cleaner than lapping processes with grinding suspensions
- High flatness, surface quality and precise edges

Diamond grinding pad

SQUADRO-O / SQUADRO-OWH

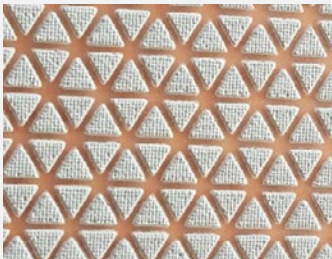
SQUADRO-O and SQUADRO-OWH are diamond grinding pads specially optimized for fine grinding of optical components. Manufactured using high-precision diamond micron sizes in a self-sharpening bond, SQUADRO-O and SQUADRO-OWH achieve excellent surface quality, exact geometry and very high removal rates. The grinding pads can be used for both flat or spherical optical components and provide easy, clean and efficient processes.

Typical applications

Fine grinding of optical components from CaF₂, ZnSe, Si, Ge, GaAs and similar materials.



Typical application on optical components like CaF₂ wafer



Close-up on grinding pad SQUADRO



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Product specifications

Abrasive layer thickness 0,2 mm
 Bond type Resin
 Carrier material Textile base

Order information

Order code SQUADRO-OWH 2-OD300-ID100mm-PU1-PSA-D1

- ① Diamond size SQUADRO-OWH 1 µm, 2 µm and 3 µm
 SQUADRO-O 6 µm, 15 µm, 30 µm and 60 µm
- ② Outer diameter 200 mm, 250 mm, 300 mm, 350 mm, 400 mm
 Custom sizes are available upon request.
- ③ Inner diameter Optional (freely selectable)
- ④ Packing unit 1 piece / box
- ⑤ Backing / mounting PSA (self-adhesive)
 SGM (metal plate)
 MAG (magnetic foil)
- ⑥ Drawing index Optional

Application recommendations

Dressing Prior to the first use, the SQUADRO-O and SQUADRO-OWH pads have to be dressed and planarized with a dressing tool (e.g. Al₂O₃ with grit 280 mesh (grit size 60 µm) or 400 mesh (grit size 1 µm, 2 µm, 3 µm, 6 µm, 15 µm, 30 µm)).

Cleaning To ensure cutting efficiency of the bonding, the grinding pad has to be cleaned from abrasive debris regularly. Best suited for this are brass brushes for manual or machine use. Machine brushes can be ordered from Pureon as accessories.

Coolant SQUADRO-LUB+ is recommended and a water-soluble cooling and lubricating fluid that ensures high and consistent material removal. DI-water is only partly suited. No dry running. Organic solvent and oil based lubricants may harm the pad and are therefore not recommended.

Grinding parameters

Grinding pressure Recommended: 2 – 10 N/cm², max. 15 N/cm²
 Circumferential speed Recommended: 5 m/s, max. 10 m/s

Contact

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