Qual Diamond Hi-tech Corporation

Polishing Pads

Lapping and polishing are important steps in material processing in optical and semiconductor industries. Lapping and polishing can have multiple steps such as rough polishing/lapping, intermediate polishing, and final polishing. Polishing processes require suitable combinations of polishing pad and diamond slurry for each polishing step and different materials. The main purpose of using a polishing pad is to increase stock removal rate and achieve excellent surface finishes. Durability and affordability are also important factors for choosing the right polishing pads.

Qual Diamond offers versatile, durable and affordable polishing pads suitable for a wide variety of materials.



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QDPD

QDPD pad is a synthetic polyester pad mainly used in the intermediate and initial polishing steps of processing various types of hard materials. It has been tested on materials high on the hardness scale, such as silicon carbide (SiC) and sapphire. It has a similar polishing characteristic as a nylon pad.

Features & Advantages

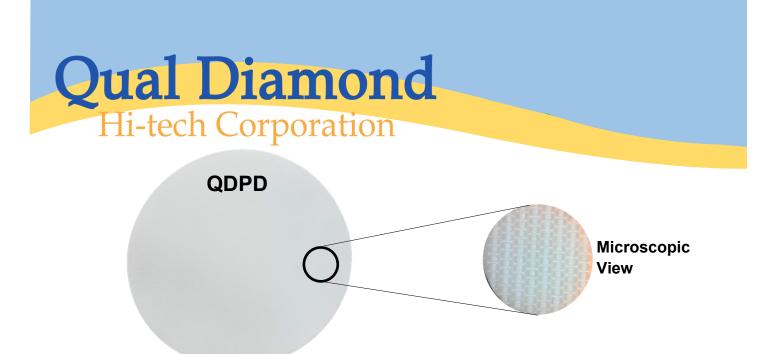
- Patterned for even distribution and flow of slurry.
- Minimum surface artifacts such as scratches and digs.
- Edge-to-edge dimensional retention.
- Very high stock removal.
- Very durable for extended use due to strong fibrous materials.
- Ease of use.
- Very affordable.

Available Size (Diameter)

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8", 9", 10", 12",14",16"
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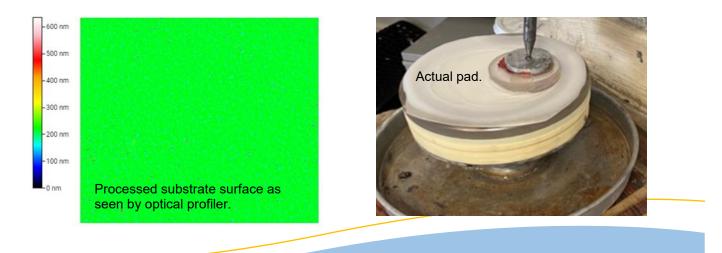
9823 Pacific Heights Blvd, San Diego, CA

- **1-858-263-4358**
- 🍯 sales@qualdiamond.com
- 🕀 www.qualdiamond.com



Example:

 AI_2O_3 - Advanced ceramics polishing with QDPD and Qual Diamond slurry is presented here for illustration. This is the first step of the polishing process on the aluminum oxide substrate.





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QDTXD

This is the most common pad used for intermediate polishing for soft material such as zinc selenide and hard materials such as SiC and Sapphire. This pad reduces steps in polishing process with the correct combination of slurry and other polishing parameters such as load, rpm, and duration.

Features & Advantages

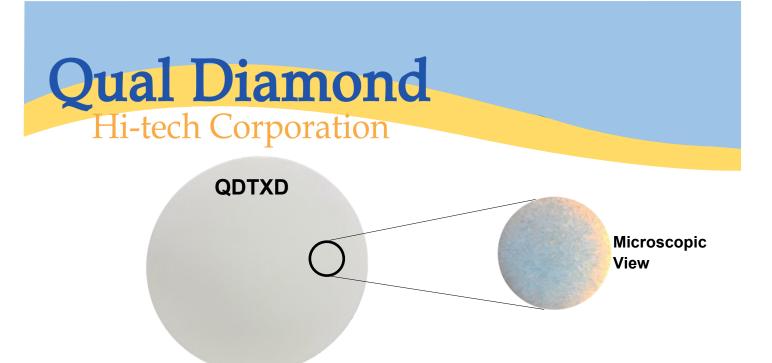
- Non-woven nap, stiffer fiber for dimensional stability.
- Minimum surface artifacts such as scratches and digs.
- Edge-to-edge dimensional retention.
- High stock removal.
- Very durable.
- Ease of use.
- Very affordable.

Available Size (Diameter)

8", 9", 10", 12",14",16"

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Example:

ZnSe - Zinc selenide polishing with QDTXD and Qual Diamond slurry in the intermediate polishing step of zinc selenide polishing is presented here for illustration. QDTXD can be used in polishing other optical materials as well with recommended slurry + pad combinations.



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QDMD

QDMD pad is a finish polishing pad for different materials. QDMD is highly napped. It is very soft and provides exceptional surface finish when used together with the appropriate diamond slurry.

Features & Advantages

- Soft napped surface.
- Minimum surface artifacts such as scratches and digs.
- Retains dimension with even distribution of fibers.
- Excellent retention of slurry.
- Durable.
- Ease of use.
- Affordable.

Available Size (Diameter)

8", 9", 10", 12",14",16"





Example:

SiC - Silicon carbide wafer polishing with QDMD and Qual Diamond slurry is presented here for illustration. This demonstrates the efficiency of the pad and slurry combination in the processing of semiconductor materials.



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- 🎽 sales@qualdiamond.com
- 限 www.qualdiamond.com