Kiru Kezuru Migaku

DISCO

Grinding Wheels

Poligrind

A New Dimension in “Kezuru” Performance

Ultra-high quality grinding.

Poligrind is designed to be used on the second spindle of precision in-feed grinders. Without any change in processes or addition of equipment, Poligrind helps improve post-grinding surface roughness, die strength, and overall process quality.

- Can be used with current grinding equipment.
- Improves die strength and other quality factors over current processes.
- Employs extremely fine grit to offer ultra-high-quality grinding results.
- Ultra-high quality grinding results compared to existing Z2-axis (fine grinding) wheels.
- Allows for high-load processing.

Applications
Silicon Wafers, etc

Poligrind

Specifications

Tooth width	Tooth height
3.0 (mm)	7.0 (mm)

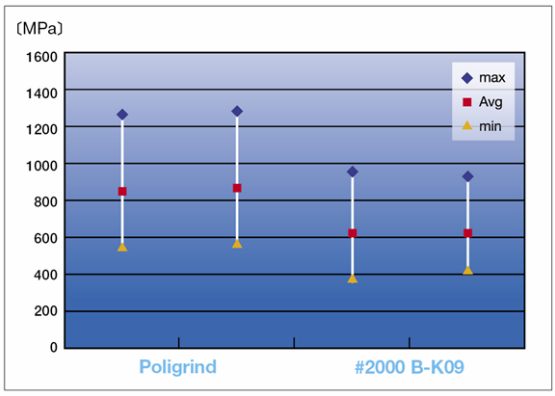
PW06 – PA0135 300 × 3W × 7T – SR

Tooth type	Wheel size	Tooth indication	Shape	Arrangement
PA0135	200 300	SR	Segment	Circular

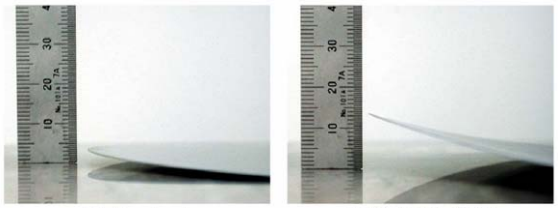
Comparative data with previous wheels

Poligrind improves die strength, reduce surface roughness, and improves overall process quality compared to previous wheels.

■Die strength (ball point breakage test)



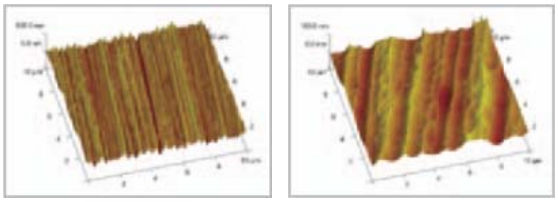
■Warpage level



Fine grinding wheel	Poligrind	#2000 B-K09
Warpage level	3.5 mm	14.0 mm

Workpiece: 8" silicon mirror wafer
Z2 removal amount: 35 µm
Final thickness: 50 µm

■Surface roughness



Fine grinding wheel	Poligrind	#2000 B-K09
Ra (µm)	0.009	0.015
Rmax (µm)	0.065	0.081

Workpiece: 8" silicon mirror wafer
Measurement system: Non-contact high-resolution surface profile measurement system

Assistance with using Poligrind

To achieve the best processing results possible with Poligrind, correct formulation of the application is required. DISCO's applications engineers will be happy to work with your workpiece and specifications to achieve the desired processing results.

When ordering

Please contact a DISCO representative with your product needs such as type, wheel size, and quantity.

When you place the first order with us, please explain application information such as materials to grind, sizes, machine, type, and other specification.

We are ready to help you to determine which is our most appropriate product type for your application.

Due to improvements in our products, it is possible that product specifications may be changed without advanced notice.
Please confirm the product specifications with a DISCO representative.

To use these DISCO blades and wheels (hereafter precision tooling) safely...
Please read carefully and follow the instructions below to prevent any accidents or injuries.

- USE a safety cover (nozzle case, cover), equipped as a standard accessory, to avoid injury.
- DO NOT EXCEED the specified rpm limit indicated on the precision tooling.
- FOLLOW the instruction manual of the equipment to mount the precision tooling properly.
- DO NOT DROP OR HIT the precision tooling. This may cause breakage or injury.
- Always CHECK the precision tooling for chipping or any other damage before starting to use it. DO NOT USE the tooling if there is any damage.
- READ the operation manual of the cutting/grinding equipment before use.
- DO NOT USE the precision tooling with modified or customized equipment.
- DO NOT USE precision tooling that has a different size from the one recommended for your equipment.
- DO NOT USE the precision tooling for any other purpose than grinding, cutting, or polishing.
- Always USE water or coolant to prevent precision tooling damage.

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