



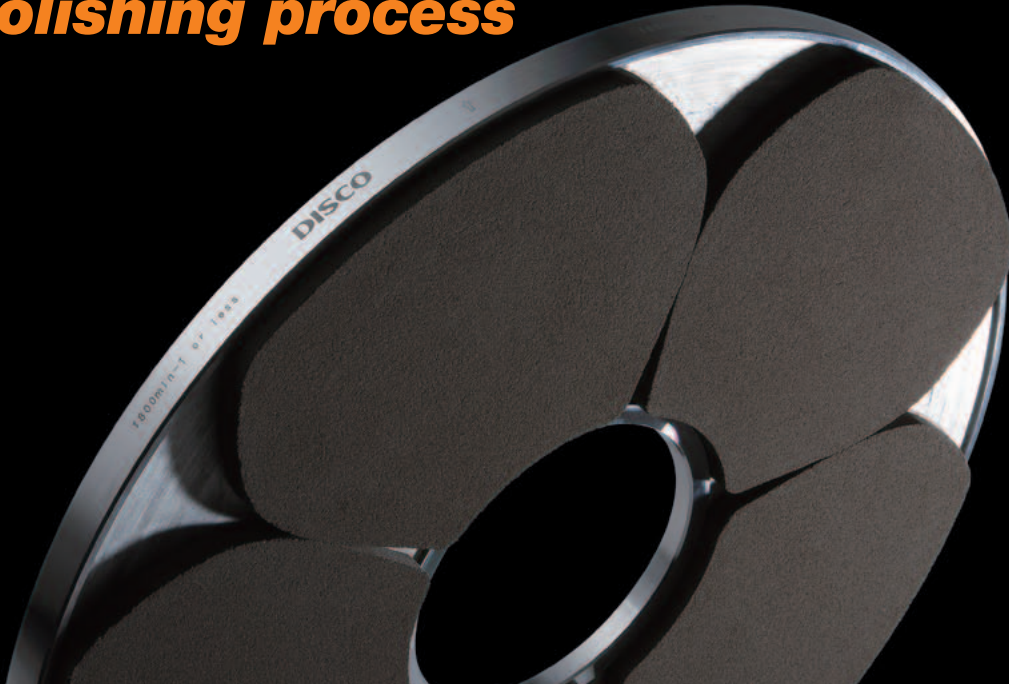
DISCO

Kiru · Kezuru · Migaku Technologies



Dry Polishing Wheels Gettering DP

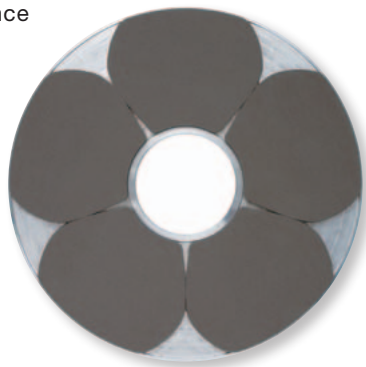
Maintains gettering performance in the dry polishing process



Achieves high die strength while maintaining gettering performance in the dry polishing process and provides a new solution for wafer thinning.

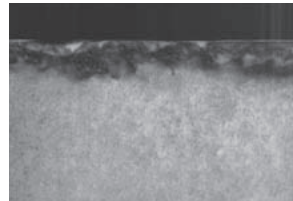
In accordance with ultrathinning of wafers, a decline in gettering performance becomes a major concern. Gettering DP is a new solution which realizes high die strength and good gettering performance at the same time using DISCO's unique dry polishing process. This chemical-free process has less environmental impact and polishes thin wafers by operations easier than the process using slurry.

- Realizes gettering performance equal to the normal grinding
- Low environmental impact due to the process requiring no slurry
- High die strength thanks to the original dry polishing process

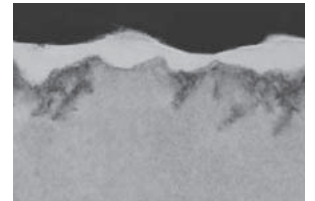


■ TEM comparison of wafer damage

Compared with the #2000 grinding wheel, the damage layer of the wafer polished by Gettering DP is very small.



Gettering DP Wheel

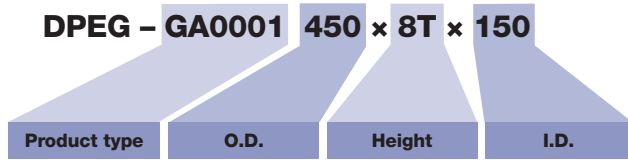


#2000 Wheel

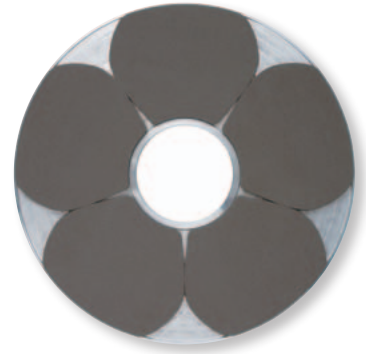
Applications

Silicon wafers, etc.

Specifications

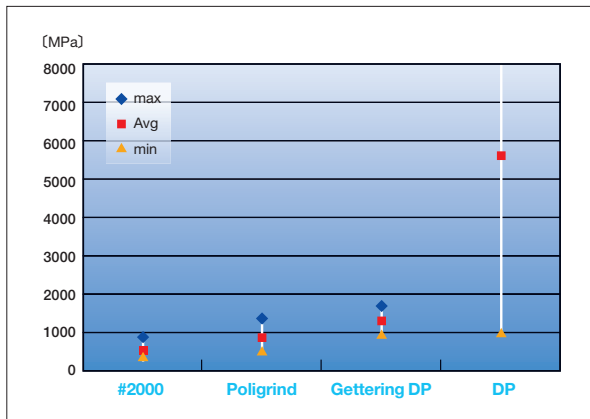


Dry Polishing Wheels Gettering DP



Experimental data

Die strength comparison (Ball bending)

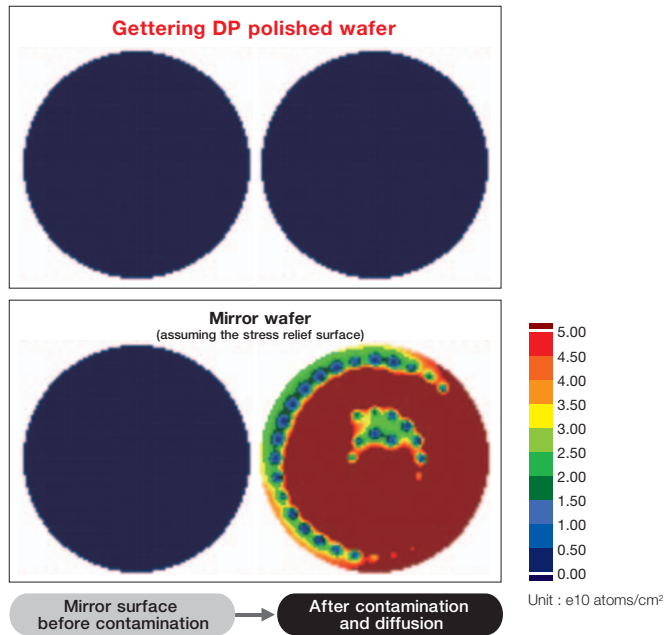


Gettering effects

The amount of Cu precipitated onto the polished surface of a mirror wafer sample after applying a copper solution exceeds 1.0 E11. In contrast, the amount of Cu precipitated onto the polished surface of a Gettering DP sample is below the detection limit, thus indicating that the surface had a gettering effect.

TXRF measurement data before and after Cu solution application (ø8" mirror wafer)

To quantitatively measure the gettering effects, a sample was contaminated with a Cu solution and then the Cu was diffused in at 350°C for 3 hours and then analyzed using TXRF (Total-Reflection X-ray Fluorescence). For the Gettering DP sample, the Cu solution was applied to the ground surface. The Cu was then diffused in at the same time and temperature, and the amount of Cu precipitated onto the polished surface was measured using TXRF.



*Detectable range at below 0.5E10 atoms/cm²

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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