



Dry Polishing Wheels

# Gettering DP

Dry polishing wheels that achieve high die strength while maintaining gettering performance



### Achieves high die strength while maintaining gettering performance

Due to the ultra-thinning of wafers, loss of 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.

### Low environmental impact due to not requiring slurry for processing

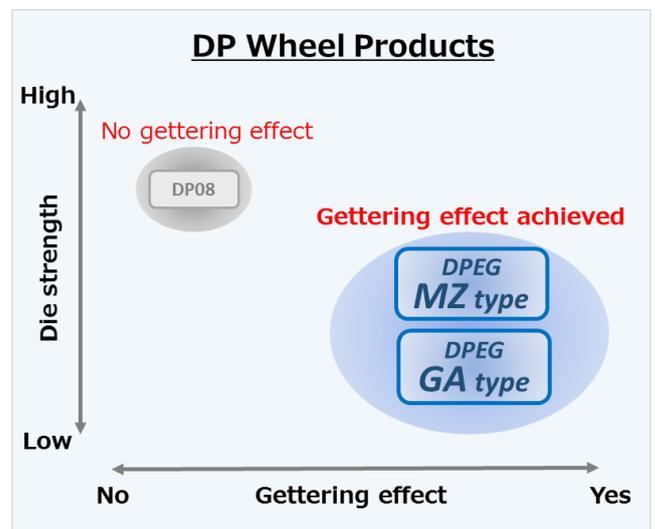
This chemical-free process has a low environmental impact and polishes thin wafers with a simple process that does not involve using a slurry.

### Lineup of two types according to application

Gettering DP wheels are offered in two types according to the application. In contrast to the standard GA-type, the MZ-type is a DP wheel which increases the die strength of the polished wafer, allowing for an even thinner finish. However, the MZ-type requires detailed polishing condition selection according to the workpiece. Please contact us if you wish to use the MZ-type.

GA*** type	Standard gettering DP wheel
MZ*** type	A gettering DP wheel which increases die strength more than the GA-type, realizing an even thinner finish

Applications	Silicon wafers, etc.
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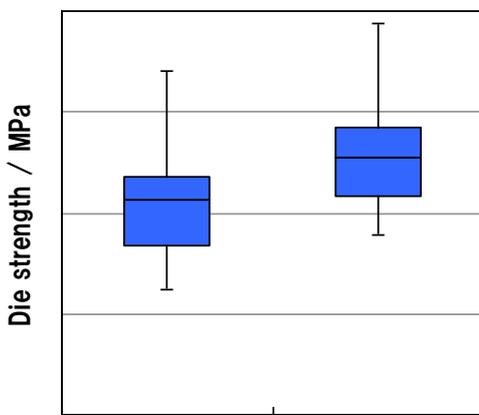
Specifications

**DPEG - GA0001 450 × 8T × 150**

Product type: GA0001, MZ0001  
 O.D.: 450  
 Height: 8T  
 I.D.: 150

Experimental Data

■ Die Strength Comparison (3-point bending)



Conventional DPEG    DPEG-MZ

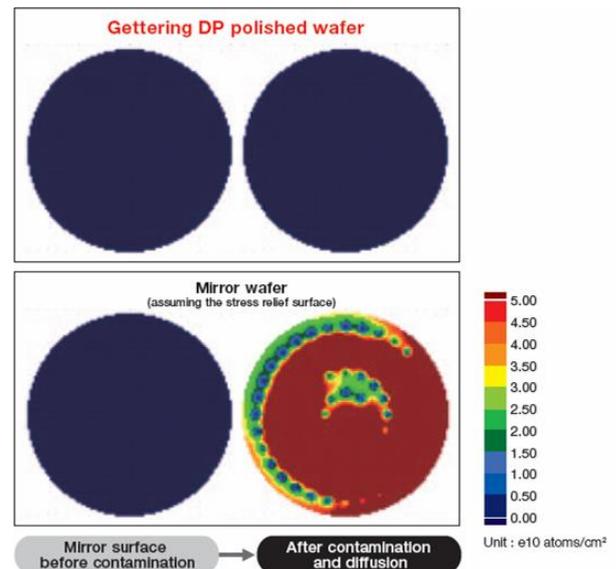
\* Finish thickness: 25 μm  
 Process: DBG (Dicing Before Grinding)

■ Gettering Effect

The amount of precipitated Cu detected on the polished surface of a mirror wafer exceeds 1.0 E11 after a copper solution is applied to the surface. In contrast, the amount of precipitated Cu detected on the backside of a wafer polished with a Gettering DP 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 effect, samples were contaminated with a Cu solution. The Cu was diffused at 350 °C for 3 hours and then analyzed using TXRF (Total-Reflection X-ray Fluorescence). Take a Gettering DP polished wafer for example; the amount of Cu detected on the opposite surface (mirror surface) is analyzed with TXRF after diffusing the Cu on the polished surface and contaminating with Cu.



\*Detectable range at below 0.5E10 atoms/cm²

All DISCO products are covered by product-liability insurance.

When Ordering

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

When placing your first order with us, please explain the application, such as materials to grind, sizes, machine, type, and other specifications.

We are ready to help you to determine which of our products is the most suited to 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 tools) 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 tool.
- FOLLOW the instruction manual for the equipment to mount the precision tool properly.
- DO NOT DROP OR HIT the precision tool. This may cause breakage or injury.
- Always CHECK the precision tool for chipping or any other damage before using it. DO NOT USE the tool if there is any damage.
- READ the operation manual of the cutting/grinding equipment before use.
- DO NOT USE the precision tool with modified or customized equipment.
- DO NOT USE a precision tool that has a different size from the one recommended for your equipment.
- DO NOT USE the precision tool for any other purpose than grinding, cutting, or polishing.
- Always USE water or coolant to prevent damage to the precision tool.



DISCO CORPORATION

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