

Electroformed Bond Blades

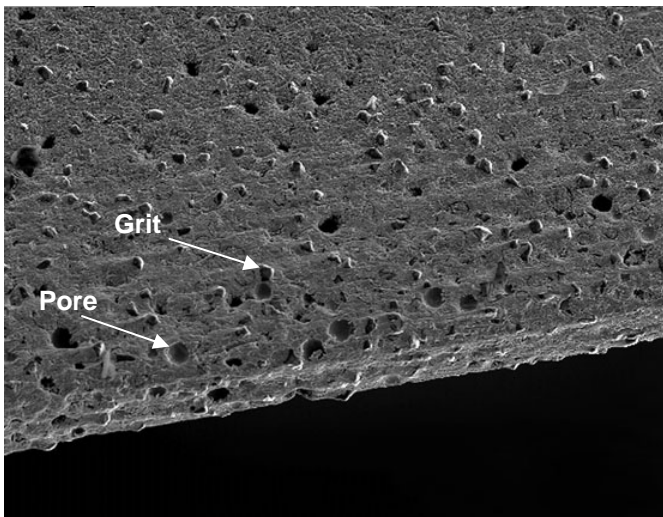
ZP07 SERIES

High grade processing is possible with an electroplated porous structure blade

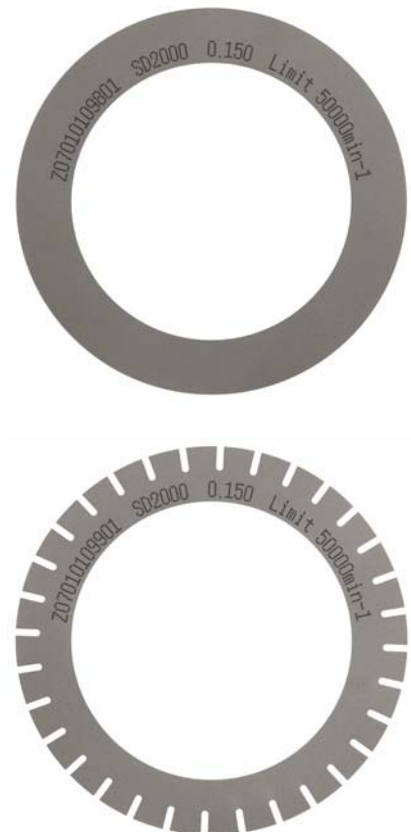
The ZP07 series realizes high-grade processing of hard materials and compound materials by employing a porous structure inside an electroplated blade

The ZP07 series combines high cutting ability that is specific to electroplated bond blades and appropriate self sharpening ability by forming pores in the electroplated bond. It is now possible to process silicon + glass, silicon carbide (SiC) and other materials that have been difficult-to-cut using the conventional electroplated bond.

- Realizes one-pass processing of glass + silicon wafer.
- Realizes high-quality processing of silicon carbide (SiC) and other difficult-to-cut materials.
- Two types available: Standard and low concentration.



New type of electroplated blade with pores in the blade.



Applications

Composite materials (Glass + silicon wafer etc), SiC, Ceramics etc.

Specifications

ZP07 - SD 2000 - F1B333 - A**** 54 × 0.1 A2 × 40 - L - S3

O.D.
Thickness
Surface treatment
L
Lapping specification

Grid Type	Grid Size	concentration	Special specification	Thickness Accuracy	I.D.	Slit*1			
SD	320 #320	F1B333	Standard	A1 ±0.002	L	S3			
	400 #400	F1B322	Low	A2 ±0.005					
	600 #600			A3 ±0.010					
	800 #800			A4 ±0.015					
	1200 #1200			AS Special Specification (mm)					
	1500 #1500								
	1700 #1700								
2000 #2000									
						S1	No. of slits	4	
							Depth	1mm	
						S2	No. of slits	8	
							Depth	1mm	
						S3	No. of slits	16	
							Depth	1mm	
						S4	Small Slit	No. of slits	60
							Depth	1mm	
						S4	Large Slit	No. of slits	12
							Depth	2mm	
						S5	No. of slits	40	
							Depth	1mm	
						SS	Special Specification		

*2 All slit widths are 0.5 mm (except for the SS type) Blade thickness greater than 0.06 mm are available.

Experimental Data

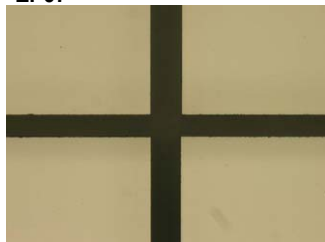
The ZP07 series can process laminated wafers (silicon + glass) in one pass and can achieve high-grade results on the silicon, glass, and bonded surfaces.

ZP07

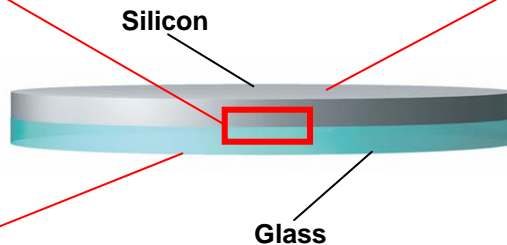


Bonded surface

ZP07



Glass Surface

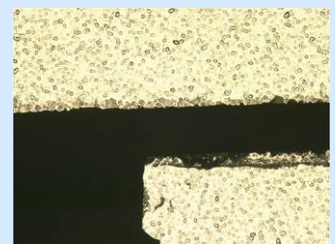


ZP07



Silicon surface

Reference photo (Current electroformed bond blade)



Silicon surface

With the current electroplated blade, the processing load increases and both blade and wafer break.

Workpiece : Si 0.5 mmt + Glass 0.5 mmt
 Speed : 5 mm/s
 Spindle revolution : 30,000 min⁻¹
 Blade : ZP07-SD2000-F1B333
 NBC-ZB1050
 Size : 56 x 0.1 x 40 mm

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.