



DISCO

Kiru · Kezuru · Migaku Technologies



Electroformed Bond Blades **ZP07 SERIES**

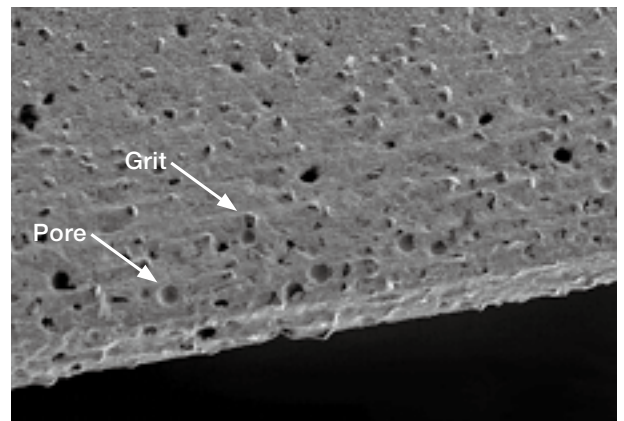
High grade processing is possible with an electroplated porous structure blade



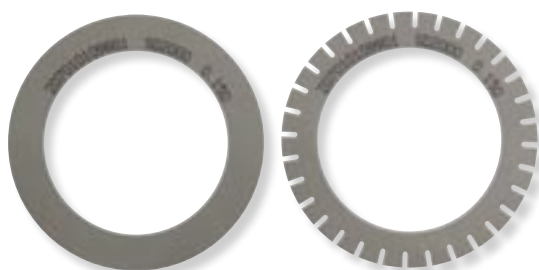
The ZP07 series realizes high-grade processing of hard materials and compound materials by making a porous structure inside the electroplated blade.

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 with conventional electroplated bonds.

- 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.

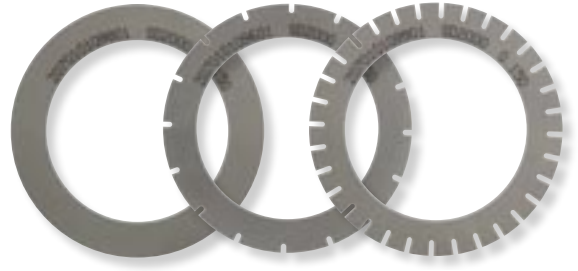


Applications

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

Specifications

Electroformed Bond Blades ZP07 SERIES



Type ^{*1}		Special specification	O.D. ^{*1}	Thickness ^{*1}	I.D.
F1B333	Standard				
F1B322	Low concentration				

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

Grit type ^{*1}	Grit size ^{*1}		Thickness Accuracy		Surface treatment	Slit ^{*2}		
SD	320	#320	A1	±0.002		L Lapping specification	S1	No. of slits
	400	#400	A2	±0.005	Depth			1mm
	600	#600	A3	±0.010	S2		No. of slits	8
	800	#800	A4	±0.015			Depth	1mm
	1200	#1200	AS	Special specification	S3		No. of slits	16
	1500	#1500					Depth	1mm
	1700	#1700	Small Slit		No. of slits		60	
	2000	#2000			Depth		1mm	
S4						Large Slit	No. of slits	12
							Depth	2mm
S5							No. of slits	40
							Depth	1mm
SS							Optional	

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

*1 Standard specification range by grit size (mm)

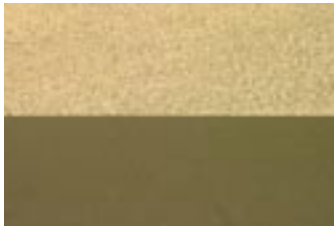
O.D.	Grit size	Thickness			Grit type	Type	
		0.060 - 0.099	0.100 - 0.149	0.150 - 0.399		F1B333	F1B322
50.0 - 62.0	#320			√	√	√	
	#400			√	√	√	
	#600		√	√	√	√	
	#800		√	√	√	√	
	#1200		√	√	√	√	√
	#1500 - #2000	√	√	√	√	√	√
62.1 - 78.0	#320			√	√	√	
	#400			√	√	√	
	#600 - #800		√	√	√	√	
	#1200 - #2000		√	√	√	√	√

(mm) Note: For availability of specifications other than the above, please contact your DISCO sales representative.

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

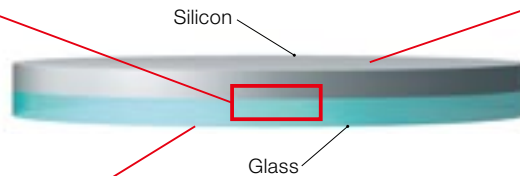


Bonded surface

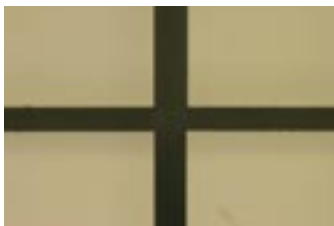
ZP07



Silicon surface



ZP07



Glass surface

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

Reference photo
(Current Electroformed Bond Blade)



Silicon surface

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

When ordering

Please contact a DISCO representative with your product needs such as type, thickness, outer and inner diameter, and quantity.

When you place the first order with us, please explain application information such as materials to cut or grind, sizes, shape, 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 wheels 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 maximum rpm if it is specified.
- FOLLOW the instruction manual of the machine to mount wheel properly.
- DO NOT DROP OR HIT wheels. this may cause wheel breakage or injury.
- Always CHECK the wheel for chipping or any other wheel damage before starting to use the wheel. DO NOT USE the wheel if there is any damage.
- READ the operation manual of the cutting/ grinding equipment before use.
- DO NOT USE a wheel with a modified or customized equipment.
- DO NOT USE a wheel that has a different size from the one recommended for your machine.
- DO NOT USE a wheel for any other purpose than Grinding, Cutting, or Polishing.
- Always USE water or coolant to prevent wheel breakage.



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