



DISCO

Kiru · Kezuru · Migaku Technologies



Resin Bond Blades P1A SERIES

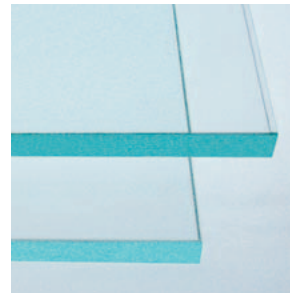
With an emphasis on cutting performance, these blades provide high processing quality for difficult to cut material



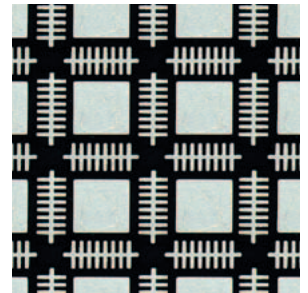
Processing hard materials

These sintered diamond blades employ thermo-setting resin as the bonding material. Taking advantage of its excellent elasticity, the ability of this bond to cut has been maximized. They are suitable for processing of hard-to-cut materials such as glass and crystal materials.

- Suitable for highly fragile materials such as glass
- A wide variety of bond types are available
- Able to precisely control diamond concentration to achieve cutting quality



Glass



QFN

Applications

Glass, Crystal, Quartz, LiTaO₃, Various types of semiconductor packages, Ceramics, etc.

Processing data

Comparison of cutting efficiency for bond types

Bond				
BR50	BR75	MB01	BR10	B01
				Wear-out faster

The above shows the tendency of the process result when a dresser board is cut. Depending on the cutting conditions and type of material, the tendency may vary. Therefore, this shall only be used as a reference.

Application by grit size

Grit	
#1200	#600
LiNbO ₃ , LiTaO ₃	
Crystal	
Glass Family (Quartz, Soda glass etc.)	
Al ₂ O ₃	
Aluminium nitride	
QFN	

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Specifications

*1 Products that include a special specification may be denoted with "RBT-****"

Type ³	Basic shape ²	Internal Code ³	Thickness accuracy ^{3,4}	Grit type	Grit size	Bonding Strength ³	Concentration ³	Bond ³	O.D.	Thickness	I.D.	Angle
G	1A8	P	1 Standard accuracy ⁵	SD Synthetic diamond	280 #280	R	13	B01	54	0.15	40	45°
P	1E8		2 ±0.005	SDC Coated Synthetic diamond	320 #320							
	1M8		3 ±0.002 (mm)	B cBN	360 #360							
	1N8			BC Coated cBN	400 #400							
	1V8				500 #500							
					600 #600							
					800 #800							
					1000 #1000							
					1200 #1200							
					1500 #1500							
					1700 #1700							
					2000 #2000							
					3000 #3000							
					4000 #4000							
					5000 #5000							
					6000 #6000							

*2 Shapes other than 1A8 are available with a thickness of 0.1 mm or more.

*4 Possible accuracy differs depending on the product, size and bond.
*5 Standard accuracy differs depending on the product and size.

*3 Regarding the combination of blades
The type, internal code, bonding strength, and concentration of each blade correspond to the bond type. Please refer to the chart below.

Type	Internal code	Bonding strength	Concentration	Bond	Thickness accuracy
G	5	R	13	B01	1,2,3
			12		
			11		
P			21	MB01	
	6	N	10	BR10	1,2,3
G			25		
			50		
P			75		
			100	BR50	2,3
				BR75	

Standard blade types¹⁶

Bond: B01, MB01 (mm)					
Thickness	0.05 -	0.06 -	0.08 -	0.1 -	0.15 - 0.7
Grit size	#340 - #1200	#340 - #1200	#320 - #1200	#240 - #1200	#180 - #1200
50 - under 52.5	✓	✓	✓	✓	✓
52.5 - under 63.5				✓	✓
63.5 - 88.9					✓

Bond: BR10, BR50, BR75 (mm)			
Thickness	0.1 -	0.15 -	0.3 - 1.0
Grit size	#400 - #5000		
50 - under 63.5	✓	✓	*
63.5 - 76.2		✓	*

* = BR10 bond is out of this standard specification range.

*6 Please contact a DISCO representative for details.
G1A: #4000 and bigger grit blades are available.

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 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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