



DISCO

Kiru · Kezuru · Migaku Technologies



Metal Bond Blades **B1A**SERIES

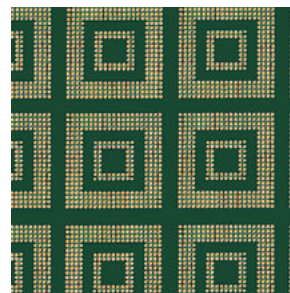
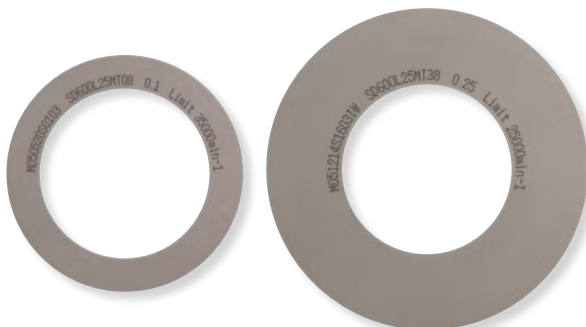
Realizes precise processing of difficult to cut material based on superior wear resistance and rigidity



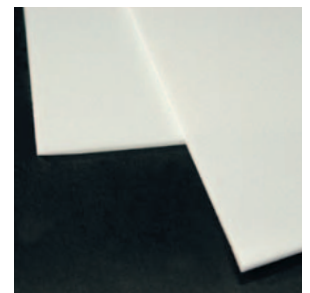
Precision processing of hard-to-cut materials

Sintered metal powder is used as the bonding agent material to realize strong holding power. As a result, these blades have low blade wear. They are excellent for accurate cutting or grooving of electronic devices such as CSP packages, ceramics and optical materials. Also, since they have both excellent rigidity and cutting ability there is low risk of wavy cutting.

- Minimized blade wear and high cutting ability
- High rigidity - minimized wavy and slant cutting
- Wide variety of bond types for various applications.
- Able to precisely control diamond concentration to achieve cutting quality



CSP



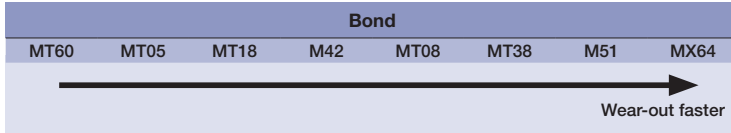
Ceramics

Applications

Electronic parts, Optical devices, Various types of semiconductor packages, Ceramics, Mono-crystal ferrite, Glass, etc.

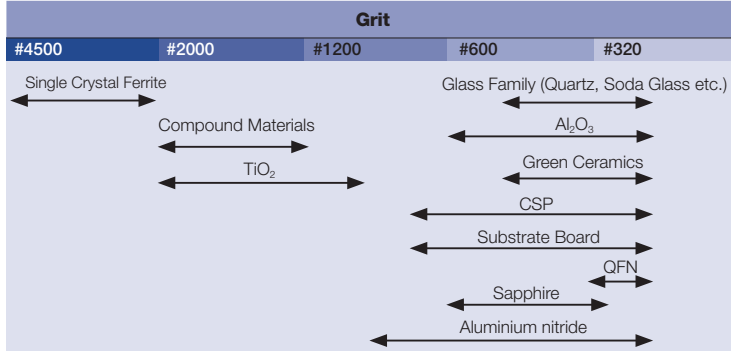
Processing data

Comparison of cutting efficiency for bond types



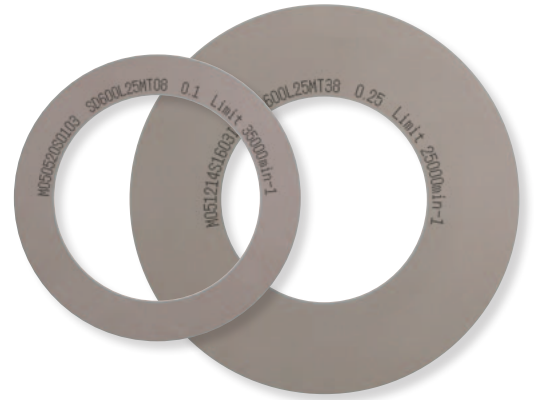
The above shows the tendency of the process result when a dresser board is cut. Depending on the cutting conditions and type of material, the tendency may vary. Therefore, this shall only be used as a reference.

Application by grit size



Metal Bond Blades

B1A SERIES



Specifications

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

B 1E8 6 3 S3 SD 600 L 50 MT38 54 x 0.15 x 40 x 45°

Basic shape ^{*2}	Internal code ^{*3}	Thickness accuracy ^{*3,4}	Slit ^{*6}	Grit type	Grit size	Bonding strength	Concentration	Bond ^{*3}	O.D.	Thickness	I.D.	Angle	
1A8		1 Standard accuracy ^{*5} 2 ±0.005 3 ±0.002 (mm)	S1 No. of slits 4 Depth 1mm S2 No. of slits 8 Depth 1mm S3 No. of slits 16 Depth 1mm S5 No. of slits 40 Depth 1mm SS Optional	SD Synthetic diamond SDC Coated Synthetic diamond B cBN BC Coated cBN	320 #320 360 #360 400 #400 500 #500 600 #600 800 #800 1000 #1000 1200 #1200 1500 #1500 1700 #1700 2000 #2000 3000 #3000 4000 #4000 5000 #5000 6000 #6000	25 Low 50 75 100 125 High	Low High					θ	
1E8													
1M8													
1N8													
1V8													

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

*6 All slit widths are 0.5 mm (except for the SS type)

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

Internal code	Bonding strength	Bond	Thickness accuracy
0	N	M42 M51	1, 2, 3
6	L	MT08 MT38 MX64 MT05	2, 3
	P	MT18 MT60	

Standard blade types

Bond: M42, M51

Thickness	(mm)			
Grit size	#600 - #3000	#400 - #3000	#320 - #3000	#320 - #3000
O.D.				
50 - 63.4	✓	✓	✓	*
63.5 - 80		✓	✓	*

✓ = Available

* = Available for M42 bond only

Bond: MT60, MT05, MT18, MT08, MT38, MX64

Thickness	(mm)	
Grit size	#400 - #6000	#400 - #6000
O.D.		
50 - under63.5	*	✓
63.5 - 76.2	*	✓

✓ = Available

* = Available for MT08, MT38 and MX64 bond only

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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