

Metal Bond/Resin Bond Blades with Steel Core

A1A/K1A SERIES

Maximizes blade rigidity with an integrated steel core

A1A/K1A series steel core blades are suited for high process load and deep cut depth processing

DISCO has combined a steel core with metal bond blades and resin bond blades to attain high rigidity. The rigidity is especially suited for high load and deep cut depth processing when using a slicer or when using mounting multiple blades. Two different bond types (metal and resin) are available to support a variety of different workpieces and applications.

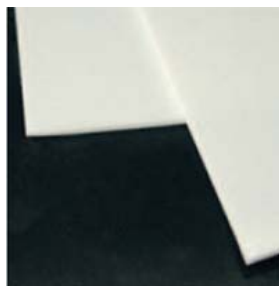
- High rigidity is attained by combining a steel core with the blades.
- Maximum outer diameter is 205 mm, for compatibility with slicers.



A1A Series - Metal Bond

High rigidity and long life

The long life of the metal bond and the high rigidity of the steel core enables deep cutting of hard materials such as ceramics and ferrite.



Ceramics

K1A Series - Resin Bond

High rigidity and enhanced quality

The excellent cutting ability of the resin bond and the rigidity of the steel core allows cutting and grooving of glass and crystal materials.



Glass

Applications

Ceramics, various types of glass, ferrite, quartz, crystal, metal, etc.

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A1A/K1A SERIES

Specifications

Thickness accuracy ^{*2}		*3 Varies according to the blade.									
Type A	1	Standard accuracy ^{*3}		Grit type		Concentration		*5 Stated blade thickness / substrate thickness only for the 1A1R shape. Example: 76.2 x 0.5 / 0.4 x 40			
	9	±0.010		SD	Synthetic Diamond	25					
	2	±0.005		SDC	Coated	50					
	3	±0.002		Synthetic Diamond		75					
Type K	7	Standard accuracy ^{*3}		B	cBN	100					
	9	±0.010		BC	Coated	125					
	2	±0.005		cBN							

Internal code^{*2}

※1 **A 1E1 6 1 S2**

(mm)

SD 400 L 50 MJ45

Bonding strength^{*2}

76.2 × 0.4 × 40 × 45°

Bond^{*2}

76.2 × 0.4 × 40 × 45°

O.D.

76.2 × 0.4 × 40 × 45°

Thickness^{*5}

76.2 × 0.4 × 40 × 45°

I.D.

76.2 × 0.4 × 40 × 45°

Type	Basic shape	Slit (Available for A1A Type only) ^{*4}	Grit size	Angle
A Metalbond	1A1	O.D. 76.2 - 80 100 - 101.6 125 - 127 150 - 152.4 200 - 205	80 #80	θ
	1A1R	No. of slits 8 8 16 16 16 Depth 7mm 10mm 12mm 15mm 15mm	100 #100	
K Resinbond	1E1	No. of slits 72 80 80 80 80 Depth 2mm 2mm 2mm 2mm 2mm	120 #120	θ
	1M1	Large No. of slits 8 8 16 16 16 slit Depth 7mm 10mm 12mm 15mm 15mm	150 #150	
	1N1	Small No. of slits 64 64 64 64 64 slit Depth 2mm 2mm 2mm 2mm 2mm	180 #180	
	1V1	SS Optional	220 #220	
			280 #280	
			320 #320	
			360 #360	
			400 #400	
			500 #500	
			600 #600	

*1 Products that include a user-specified specification may be denoted with "MAT/RAT-*****"

*2 Regarding blade combinations
The 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
Metal Bond			
6	L	MJ45	1,2,3,9
		MJ35	
		MJ30	
	N	MJ25	
		MJ15	
P	MJ15		
	MJ10		
Resin Bond			
6	N	BR10	2,7,9
		BR120	

*3 All slit widths are 0.5 mm (except for the SS type).
The specification of standard slits varies according to the outer diameter of the blade.
When placing orders, please refer to the chart above.

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	MJ10		
Resin Bond			
6	N	BR10	2,7,9
		BR120	

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.



DISCO CORPORATION

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