



Electroformed Bond Blades

Z05 SERIES

Ultra-high cutting performance for diverse applications

The Z05 Series offers ultra-high cutting performance for a wide range of workpieces and applications

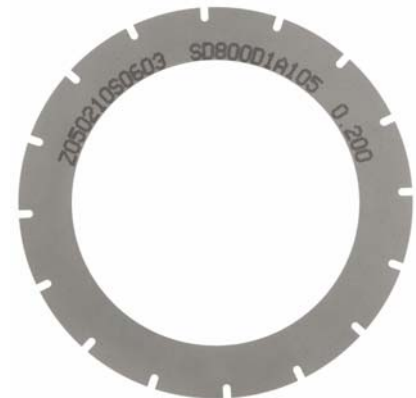
The Z05 Series electro-formed bond blades employ new DISCO advances in the materials and manufacturing process. The result is two types of ultra-high-performance blades that handle anything from hard and brittle materials to BGA, resin circuit boards, and tough device packages.

Standard type (D1 bond):

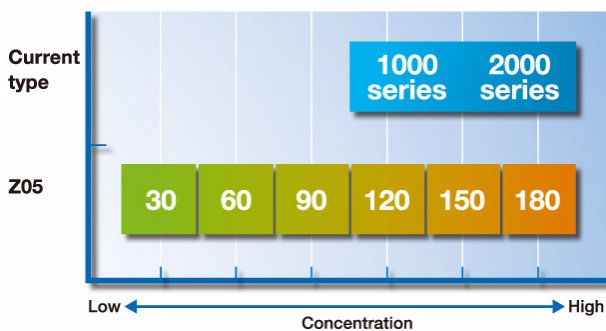
- Up to 6 concentration levels provide a greater blade selection.
- In processing hard and brittle materials, process quality is improved while blade life is maintained.

Processing quality focused type (D1A bond):

- Blades edge retains shape for stable and consistent processing.
- Burring of metal and plastic may be prevented or reduced.



■ Concentration range



During dicing, concentration affects both the speed of blade wear and the size of chipping. By selecting precisely a concentration* that is appropriate to the application, both wear speed and process quality can be made more stable and consistent.

*Concentration refers to the percentage of diamond grit in the abrasive portion of the blade. For example, a concentration level of 100 indicates 25 % diamond grit by volume.

Applications

Chip LED board, Green Ceramics, Hard and brittle material, etc.

Specifications

Grit type		Grit size		Concentration		Thickness		Thickness accuracy		Blade shape*1		Slit*2	
SD	B	360	#360	30	60	A1	±0.002	E	S1	No. of slits	4	Depth	1mm
		400	#400	90	120	A2	±0.005	N	S2	No. of slits	8	Depth	1mm
		500	#500	150	180	A3	±0.010	M	S3	No. of slits	16	Depth	1mm
		600	#600			A4	±0.015	V	S4	Small No. of slits	60	Slit Depth	1mm
		700	#700			AS	Optional		S4	Large No. of slits	12	Slit Depth	2mm
		800	#800						S5	No. of slits	40	Depth	1mm
		1000	#1000						S5	Depth	1mm		
		1200	#1200						S	Optional			
		1500	#1500						SS	Optional			

*1 Blade thickness greater than 0.1mm are available.
*2 All slit widths are 0.5mm (except for the SS type)
Blade thickness greater than 0.04mm are available.

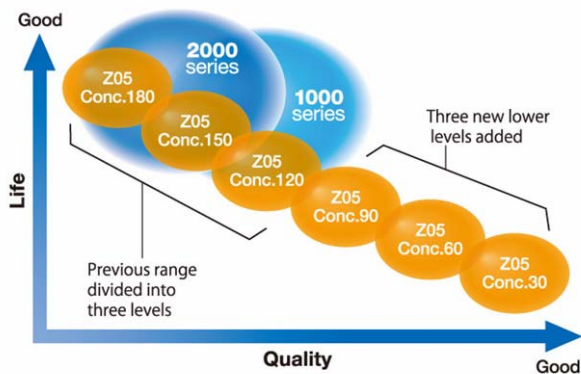
Two Blade Types for Different Needs

The Z05 Series offers two blade types for different needs and applications:

Z05series

Standard type (D1 bond)

In contrast to previous blades, which offered 2 concentration levels, standard and low level, the Z05 Series offers up to 6 concentration levels in a range that is both wider (includes lower levels than previously offered) and more finely divided.

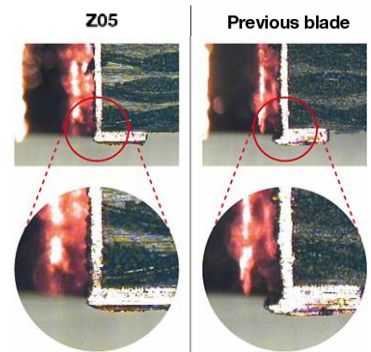


Processing quality focused type(D1A bond)

Compared to previous products, it can sustain a stable edge because the change in shape of the blade tip is controlled.

Cutting example

Burring (through-hole)
Using the Z05 Series can result in reduced electrode and resin burring.



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.