Kiru Kezuru Migaku

DISCO

Electroformed Bond Blades

NBC-Z SERIES

High performance blades to support a wide range of applications

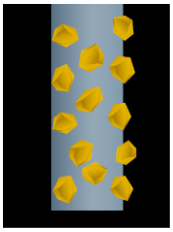
Superior cutting quality for applications ranging from dicing wafers to cutting substrates

The ultra-thin, high performance NBC-Z Series blades are a result of DISCO's original blade development. These blades employ electroformed bonds that realize superb cutting quality and blade life. In addition to dicing semiconductor wafers, these blades are suitable for dicing a wide variety of semiconductor packages.

- Deep cutting and grooving are possible using ultra-thin blades.
- Blade thickness - 0.015 mm to 0.3 mm
- Wide range of grit sizes and bond types are available to meet application requirements
- Available for both dicing saws and slicers

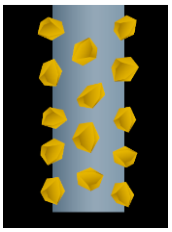
NBC-Z Types

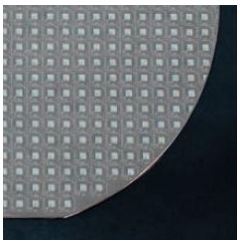
The structural strength of the blade allows for ultra-thin blades to be realized. They are suitable for dicing and deep grooving of narrow streets.

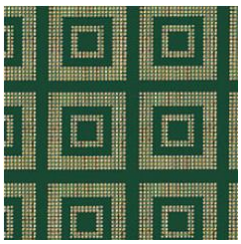


NBC-ZB Types

By changing the lateral face of the blades, surface chipping and slanted cuts are minimized. This results in improved cutting quality.




Silicon wafer


CSP

Applications
Silicon, GaAs, GaP, Various types of semiconductor packages, etc.

Electroformed Bond Blades

NBC-Z SERIES

Specifications

Concentration	
1	Low Concentration
2	Standard Concentration

Surface treatment		
No Code	Single surface grit protruded type	
L	Lapped type	Z Type only
N	Increased strength type	
V	Grains protruding on both sides	ZB type only

Thickness accuracy*2,3	
G2	±0.005
G3	±0.002
G	Optional

(mm)

*2 Not indicated in the case of the standard accuracy.
*3 Standard accuracy differs depending on the product and size.

O.D.	Thickness	I.D.	Angle θ
56	× 0.15	× 40	× 45°

※1NBC – Z 1 09 0 L G2 S3 T1

Type
Z
ZB

Grit size			
13	#240	08	#1200
14	#280	07	#1500
12	#320	06	#1700
28	#360	05	#2000
11	#400	04	#3000
25	#500	03	#3500
10	#600	27	#4000
09	#700	02	#4500
21	#800	26	#4800
24	#1000		

Bond	
O	Standard Bond
J	Soft Bond

Slit*4			
S1		No.of slits	4
		Depth	1mm
S2		No.of slits	8
		Depth	1mm
S3		No.of slits	16
		Depth	1mm
S4	Small Slit	No.of slits	60
		Depth	1mm
	Large Slit	No.of slits	12
		Depth	2mm
S5		No.of slits	40
		Depth	1mm
SS		Optional	

Blade shape*5

T1 

T2 

T3 

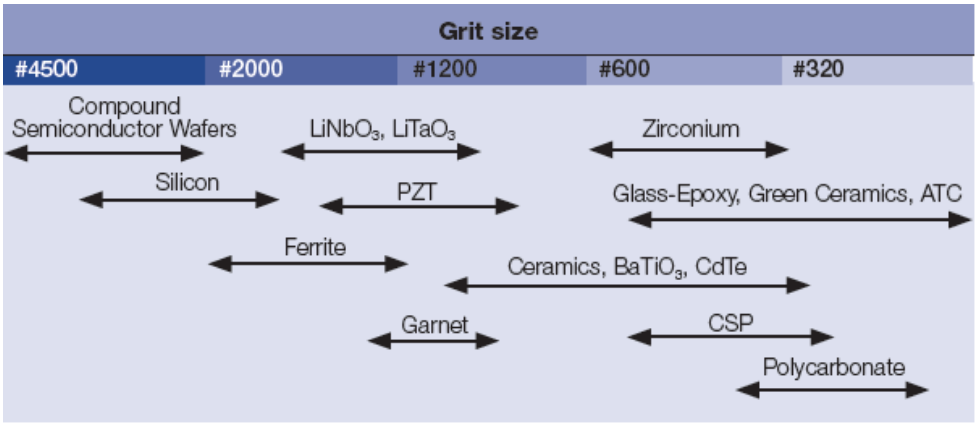
T4 

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

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

Processing data

Application by grit size



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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