

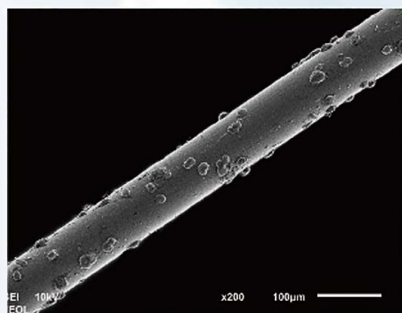
The advanced environmental preservation cutting tools

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Continuously improved electroplated diamond steel wire saw

The characteristics of the electroplated diamond wire saw

1. With high accuracy, high cutting ability and strong stickiness of the diamond grit on wire, thereby guarantee the cutting productivity of the machining are 2 to 10 times of the mortar line.
2. Improving the working environment (soluble water cutting fluid could be applied).
3. Effective recovery (chips to be separated and recycled easily).
4. To select suitable type of the wire saw in accordance with the different of usage and demand.



Application

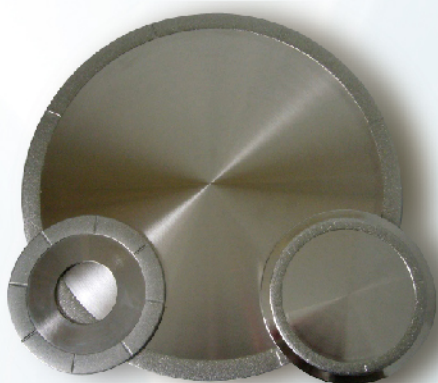
1. Applied in cutting sapphire, glass, ceramics and hard brittle non metal materials.
2. Applied in cutting neodymium iron, boron, and ferrite materials.
3. Applied in slicing silicon materials for use of semiconductor and solar cell.
4. Applied in cutting Sic, anisotropic composite materials and various of substrate.

Diamond wire specification table

We can according to customer specific requirements for production.

Product Model	Product wire diameter (mm)	Core wire diameter (mm)	Grain size	Breaking load	Applications
0.06	0.075	0.06	5-10/6-12	≥14.0	Slicing for Si wafer
0.065	0.080	0.065	5-10/6-12	≥15.5	
0.07	0.085	0.07	6-12/8-12	≥17.0	
0.08	0.095	0.08	6-12/8-12	≥20.5	
0.145	0.145	0.12	8-12/8-16	≥40.0	Slicing for Magnetic materials
0.180	0.180	0.13	25-35	≥50.0	
0.195	0.195	0.13	30-40	≥50.0	
0.21	0.21	0.15	23-35/30-40	≥60.0	
0.23	0.23	0.16	30-40	≥70.0	Slicing for Sapphire wafer
0.24	0.24	0.17	30-40	≥78.0	
0.25	0.25	0.170/175	30-40	≥80.0	
0.26	0.26	0.18	30-40/35-45	≥83.0	
0.32	0.32	0.25	40-50	≥150.0	Bricking, Cropping, Squaring for Si ingot
0.35	0.35	0.30	40-50	≥200.0	
0.37	0.37	0.30	40-50	≥200.0	
0.42	0.42	0.35	40-50	≥280.0	
0.45	0.45	0.35	45-55	≥280.0	Bricking for Si ingot or Sapphire ingot

Diamond dresser for chemical mechanical planarization



Application

For on line dressing the pad of chemical mechanical planarization of semi-conductors.

Features

- 1、 Special electroplating technology to guarantee reliable binding of diamonds.
- 2、 Special electroplating technology to guarantee the same height of protrusion of diamond grains.
- 3、 Special electroplating formula contribute to excellent durability to acid and alkaline.

Specification

- 1、 Bond: Electroplating.
- 2、 External diameter: $\Phi 100-360$.

Applicable equipment

Customized to suit for different machines and technology.

Traditional grinding wheel

Product Categories

According to the bond type, they can be assorted in four categories: Metal bond, Resin bond, Electroplated bond, Vitrified Bond.

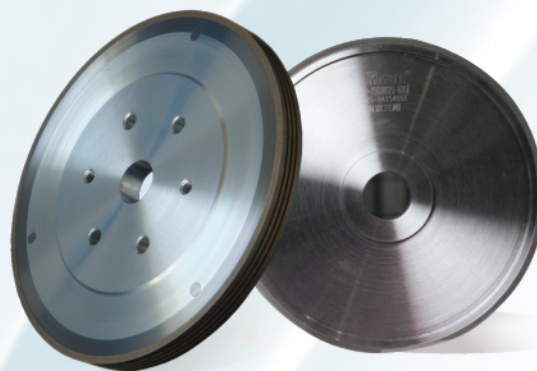
Product Application

They are widely used in semiconductor, quartz, magnetic materials, ceramics, glass, crystal glass, hard alloy, stone, mechanical processing and other hard brittle materials of drilling, cutting, grinding and precision polishing.



Provide the different size from listed above if you have different need.

Diamond wheel for edge grinding



Application

Used for the edge forming and grinding of wafer, sapphire ingot

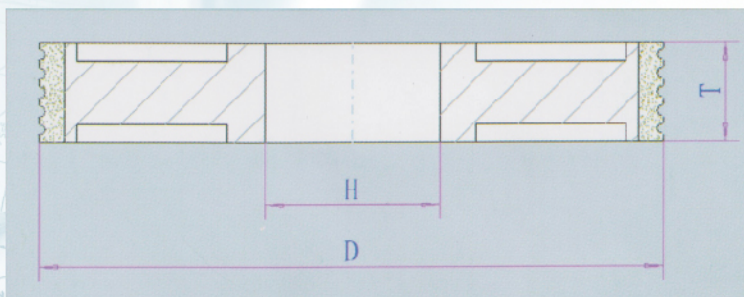
FPD, PDP and TFT-LED glass.

Features

- 1、Keep Sharp with cutting. high efficiency of grinding no broken of edge and no burned out.
- 2、Excellent wear_resistance ability. Lasting maintain the shape of wheel groove.
- 3、Widely adaptability. Can grinding various materials.

Specification

D	H	T	结合剂	粒度	槽数
Φ 50~250	根据要求	3~20	金属或树脂	325~800	1~10



Provide the different size from listed above if you have different need.

Diamond wheel for back-side-grinding of silicon wafer



Application

Used for back side thinning and front side precision grinding of silicon wafer.

Features

- 1、 Various directions of producing chemicals or metallurgical products. Provide with high efficiency of grinding and durable lifetime.
- 2、 Stably manufacture technics. Provide with fine roughness of wafer surface.

Specification

Bond: Resin, Vitrified.

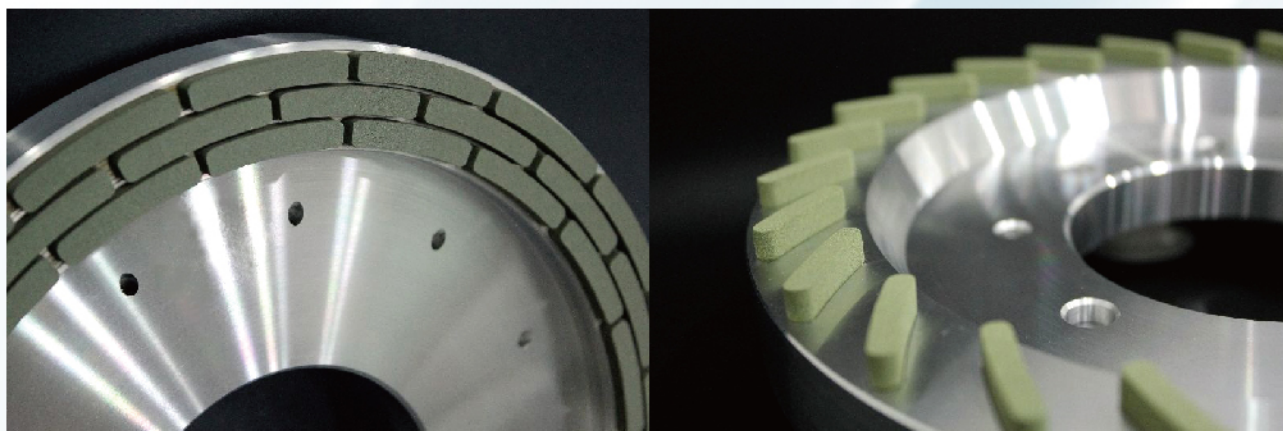
External diameter: $\Phi 175$ 、 $\Phi 195$ 、 $\Phi 209$ 、 $\Phi 305$ 、 $\Phi 355$.

Grit size: 100#~3000# (8000# in developing).

Applicable Equipment

Be used on machines manufactured by DISCO, OKAMOTO, TSK, STRASBAUGH, etc.

Diamond wheel for back-side-grinding of silicon sapphire wafer



Application

Used for back side thinning and front side precision grinding of silicon sapphire wafer.

Features

- 1、 Various directions of producing chemicals or metallurgical products. provide with high efficiency of grinding and durable lifetime.
- 2、 Stably manufacture technics. Provide with fine roughness of wafer surface.

Specification

Bond: Resin, Vitrified.

External diameter: $\Phi 175$ 、 $\Phi 195$ 、 $\Phi 209$ 、 $\Phi 305$ 、 $\Phi 335$

Grit size: 100# ~ 3000# (8000# in developing).

Applicable equipment

Be used on machines manufactured by DISCO, OKAMOTO, TSK, STRASBAUGH, etc.



Provide the different size from listed above if you have different need.

Diamond wire cutting fluid

This product is derived from Germany's formula, with a history of more than ten years, high efficiency and environment friendly. It is widely used in cutting and grinding process for the hard-brittle material, which have very good rust and druff function also cooling and lubrication for machine.

Technical parameters

Product index	XM-1	XM-2
Appearance	Yellowish transparent liquid	Brownish yellow transparent liquid
Proportion	1.02-1.15	1.02-1.15
PH value	8.0-9.2	8.0-9.2
Water solubility	100%	100%
Defoaming	≤2ml	≤2ml
Surface tension	≤30dyn/cm	≤30dyn/cm
Guarantee period	2	2
Application	Sapphire, Si and so on	Optical glass, ceramics, agate and so on



Ingredient:

It is a kind of water-soluble chemical synthetic lubricating coolant which is high-tech synthesis by a variety of surfactant lubricant rust inhibitors and other additives.

Features:

It is convenient to use, with strong cutting force and other significant characteristics of good lubricity, especially with diamond grinding good self-sharpening sharp grinding can be maintained, make the production more efficient, and does not damage the skin, nontoxic environmental, protection free from contamination, on corrosion to machine tool. It is a new generation of ideal optical glass ceramic agate sapphire, silicon magnetic materials cutting coarse grinding of hard brittle materials such as fine grinding machining quality and efficient and environmentally friendly lubricating coolant.

Application:

Used for the cutting of sapphire wafers, silicon and polysilicon. The grinding of optical lens, prism lens and plane mirror.

Usage:

According to the water 1:20 scale stir well to. Due to the different processing conditions, if any loss or losses in the process, should be in proportion to complement the cooling liquid aqueous solutions, to ensure its processing effect.

Appearance:

Tan transparent or colorless transparent liquid.