

# MIDLAND METROLOGY LIMITED

## Cut-off Wheel

### CBN Wafering Blades

**Application:** Used for cutting samples of extremely hard metals and hard alloys, non-metallic minerals, glass, ceramics, brittle and brittle materials, etc.

**Features:** The saw blade is made of edge sintering technology, with high accuracy and long blade life.



### Technical Specification

Blades Material: CBN

Bond: Stainless Steel

Specification(mm)(Diameter\*Thickness\*Arbor): 100×0.3×12.7, 125×0.4×12.7, 150×0.5×12.7, 175×0.7×12.7, 200×0.9×22, 200×0.9×32, 254×0.9×32, 300×1.5×32, 350×2.0×32

Package: 10PCS

### Guidelines for Wafering Cutting Various Materials



Most wafer cutting is done at speeds between 50 rpm and 5000 rpm with loads varying from 10-1000 grams. Generally, harder specimens are cut at higher loads and speeds (e.g, ceramics and minerals) and more brittle specimens are cut at lower loads and speeds (e.g, electronic silicon substrates). It is interesting to note that the cutting efficiency for sectioning hard/tough ceramics improves at higher speeds and higher loads.

Item	Characteristic	Speed (rpm)	Load (grams)
Silicon Substrate	Soft / Brittle	<300	<100
Gallium Arsenide	Soft /Brittle	<200	<100
Bogon Composites	Very Brittle	500	250
Ceramic Fiber Composites	Very Brittle	1000	500
Glasses	Brittle	1000	500
Minerals	Friable / Brittle	>1500	>500
Alumina Ceramic	Hard / Tough	>1500	>500
Zirconia (PSZ)	Hard / Tough	>1500	>800
Silicon Nitride	Hard / Tough	>3500	>800
Metal Matrix Composites	Hard / Tough	>3500	>500