

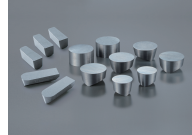
BIDEMIC

Patented

JX1 / JX3

Features

- Significantly extended tool life compared to whisker ceramics
- Double cutting speed potential compared to whisker ceramics
- Superior surface finish compared to whisker ceramics
- Applicable to powder-metallurgical heat resistant alloys
- Newly added JX3 provides toughness to BIDE MICS family

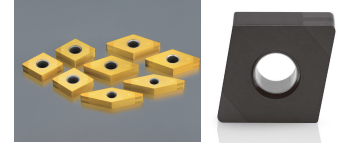


JP2 / JP0

NEW

Features

- High speed finish turning can be performed at 800SFM or higher
- Superior wear resistance compared to CBN's
- Superior notching resistance vs CBN or carbides
- Superior surface finishes vs CBNs and coated carbides
- New Release for 2020 - JP0 provides added wear resistance characteristics



SiAlON Ceramics

SX3

Features

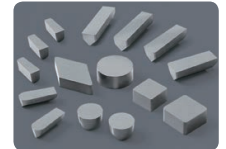
- Excellent wear resistance and toughness. Rough turning with scale ~ semi-finish turning
- Able to machine even the newest generation of HRSA work materials (like Rene) as well as Inconel 718.
- Able to mill with high efficiency.



SX7

Features

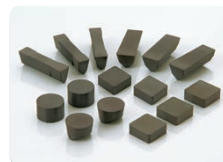
- Better notching resistance compared to Whisker ceramics. No need to program ramping
- Better flank wear resistance compared to other SiAlON ceramics. Superior performance vs. whisker ceramics under same conditions - even higher productivity at higher feed rates
- Excellent thermal shock resistance
High speed milling can be performed at 3000SFM or higher



SX5

Features

- Excellent notch wear resistance
- Toughest SiAlON grade on the market
- Better thermal shock resistance compared to Whisker-reinforced ceramics
- Use SX5 where heavy scale or interruptions exist



SX9

Features

- Excellent notch wear resistance
- Better flank wear resistance compared to competitor's Silicon nitride ceramics
- Superior toughness compared to Whisker-reinforced ceramics
- Best thermal shock resistance
- Best grade for roughing Inconel 718 with scale

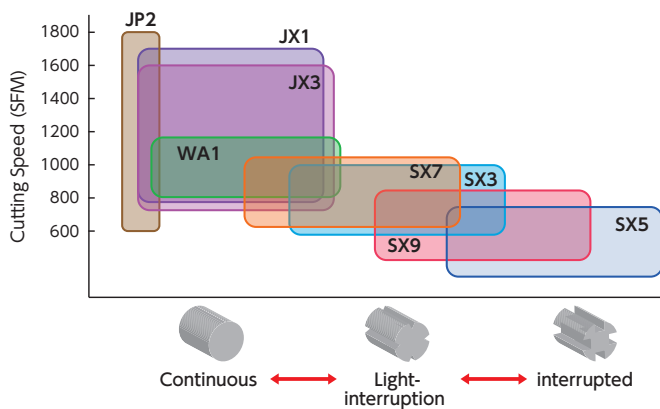


Insert Grade - Application Chart

Category	Grade	Attributes	Applications						
			Scale	No scale	Profiling	Finishing	Grooving	Milling	End milling
BIDEMICS	JX1	Special grade with higher speed and longer tool life potential		●	●	●	●		
	JP2	Special grade for finish turning				●			
	JX3	Added toughness in BIDEMICS		●	●	●	●		
Whisker	WA1	General versatile grade for turning		●	●		●		
SIALON	SX3	Best balance of toughness and hardness	●	●	●		●	●	
	SX5	Best grade for Waspaloy with scale	●				●		
	SX7	Versatile grade for turning and milling	●	●	●		●	●	
	SX9	Best grade for scale of Inco718	●	●	●			●	●

● 1st Choice ● 2nd Choice

Grade Map



	Grade	Rough with Scale	Rough	Semi-Finishing	Finishing
BIDEMICS	JP2			■	■
	JX1		■	■	■
	JX3		■	■	■
Whisker	WA1		■	■	■
SIALON	SX7		■	■	■
	SX3		■	■	■
	SX9	■	■	■	■
	SX5	■	■	■	■