KYOCERA

KS6015
KS6050 / CS7050

Silicon Nitride Ceramic for Cast Iron

Efficient and Reliable Cast Iron Machining

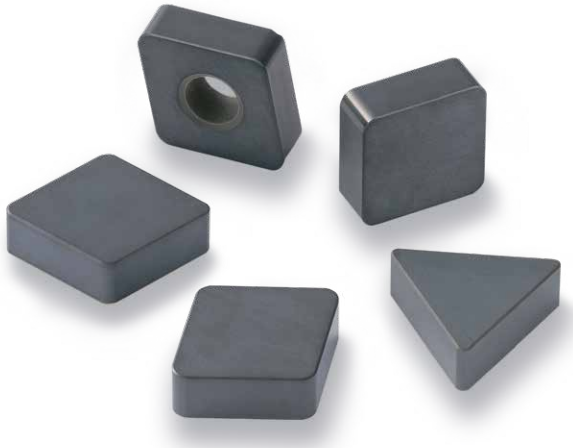
Prevents chipping during scale removal and interrupted cuts

Excellent wear resistance with reduced grain boundary phase

NEW **KS6015** Wear Resistant Machining

KS6050 General Purpose and Interrupted Machining

CS7050 High Speed Machining



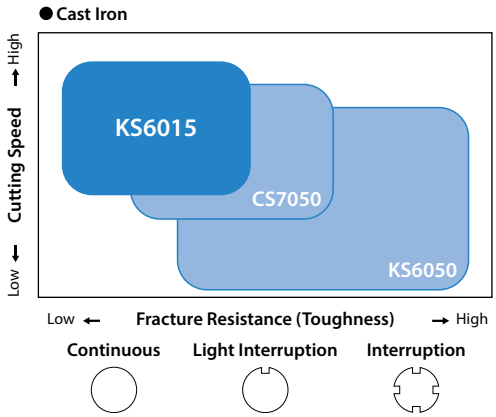
NEW **KS6015**

KS6015 NEW

Wear Resistant Machining

Crystallization of grain boundary phase improves thermal conductivity

Excellent wear resistance with reduced heat at the cutting edge



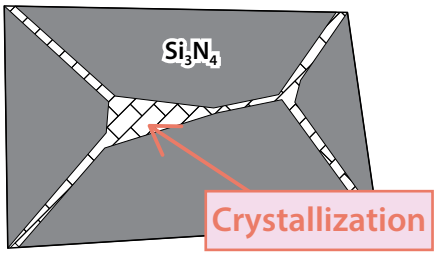
1 Excellent Wear Resistance

Crystallization of Grain Boundary Phase Provides Better Temperature Strength and Wear Resistance

Grain Boundary Phase Comparison

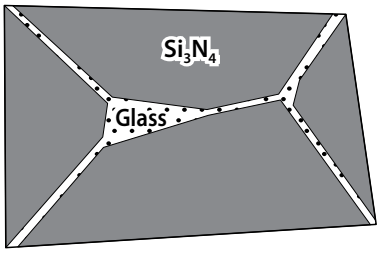
KS6015

- The grain boundary phase is crystallized
- Increased temperature strength prevents deterioration
- Improved thermal conductivity

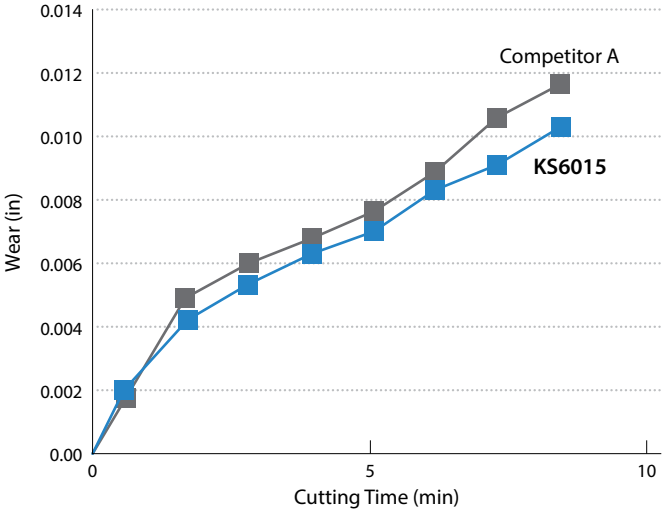


Conventional Grade A

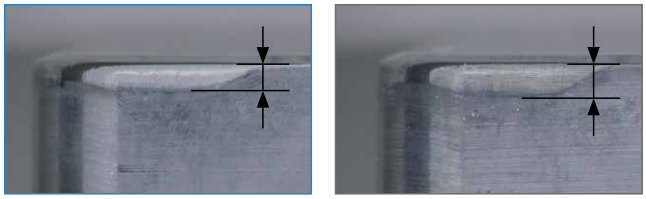
- The grain boundary phase is vitrificated
- Deteriorated by softening due to high temperature



Wear Resistance Comparison (Internal Evaluation)



Cutting Edge Comparison (after 8.5 min)



KS6015 | Competitor A (Si_3N_4)

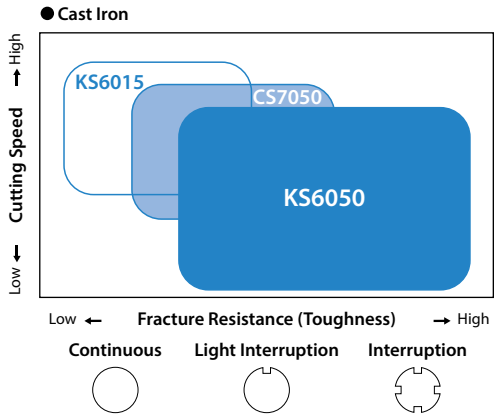
Good Surface Condition

Cutting Conditions: Vc = 1,970 sfm, D.O.C. = 0.079", f = 0.012 ipr, Dry
Workpiece: NO.45

KS6050

1st Recommendation for General Purpose and Interrupted Machining

High fracture resistance and wear resistance by reducing the grain boundary phase and high aspect ratio structure of Si_3N_4



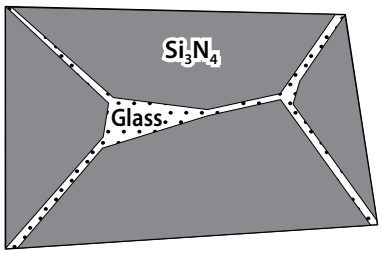
1 Stable Machining of Cast Iron

High fracture resistance and wear resistance by reducing the grain boundary phase and high aspect ratio structure of Si_3N_4

Grain Boundary Phase Comparison

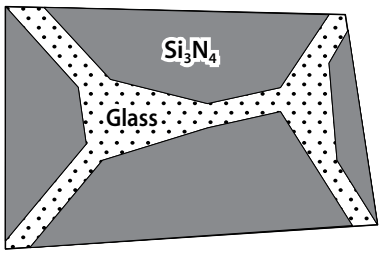
- Mechanical and thermal property is improved by controlling grain boundary phase

KS6050

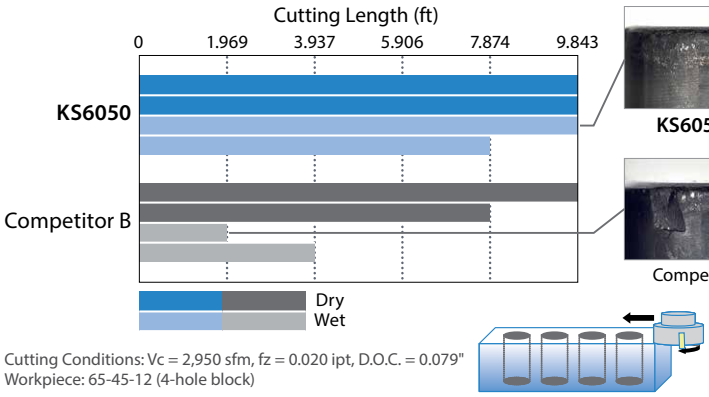


- The grain boundary phase contained a high proportion of glass, therefore its toughness will be weakened by cutting heat

Conventional Grade B



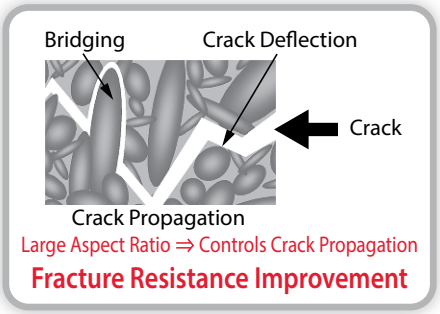
Fracture Resistance Comparison (Internal Evaluation)



KS6050 (10 Passes)

Competitor B (2 Passes)

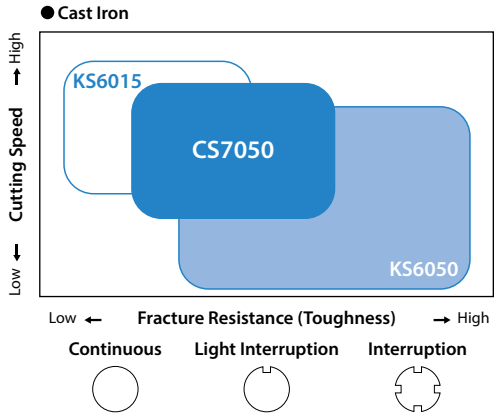
Cutting Conditions: Vc = 2,950 sfm, fz = 0.020 ipt, D.O.C. = 0.079"
Workpiece: 65-45-12 (4-hole block)



CS7050

High Speed Machining

Improved coating adhesion provides better wear resistance

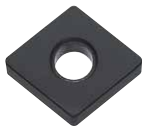
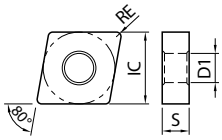
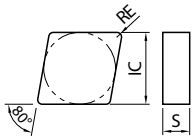
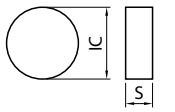
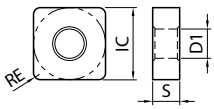
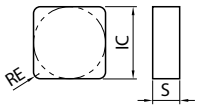
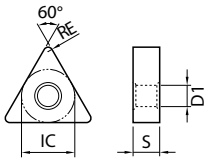
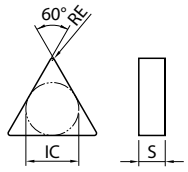


1 For High Speed Finishing of Cast Iron

Silicon nitride ceramic with CVD coating

Ensures a higher level of productivity

Inserts

Shape		Part Number		Edge Prep.	Dimensions (in)				Silicon Nitride Ceramic		CVD Coated Silicon Nitride Ceramic
					IC	S	D1	RE	KS6015	KS6050	CS7050
		CNGA	432T00825	T00825	1/2	3/16	0.203	1/32	●	●	●
			433T00825					3/64		●	●
		CNG	432T00825	T00825	1/2	3/16	-	1/32	●	●	●
			433T00825					3/64	●	●	●
			434T00825					1/16		●	
		RNG	43T00825	T00825	1/2	3/16	-	-	●	●	●
		RNG	45T00825	T00825	1/2	5/16	-	-	●	●	●
		SNGA	432T00825	T00825	1/2	3/16	0.203	1/32	●	●	●
			433T00825					3/64	●	●	●
			434T00825					1/16	●	●	●
		SNG	432T00825	T00825	1/2	3/16	-	1/32	●		
			433T00825					3/64	●	●	●
			434T00825					1/16	●	●	●
			435T00825					5/64	●	●	●
		SNG	454T00825	T00825	1/2	5/16	-	1/16	●	●	●
		TNGA	332T00825	T00825	3/8	3/16	0.150	1/32	●	●	●
			333T00825					3/64	●	●	●
		TNG	332T00825	T00825	3/8	3/16	-	1/32	●	●	
			333T00825					3/64	●		

● : Standard Item

Inserts sold in 10 piece boxes

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