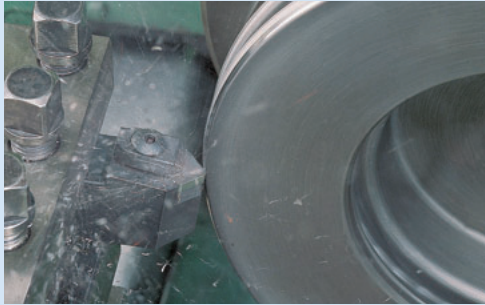


Silicon Nitride Ceramic for Cast Irons **SX1**

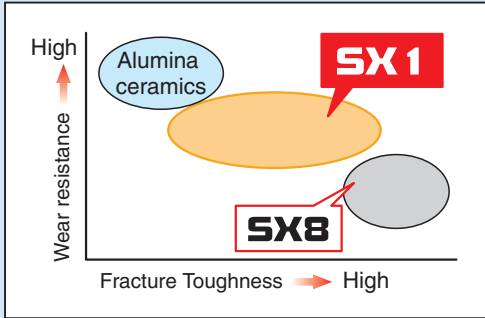
Feature

- Outstanding wear resistance by reducing binder
- Improved fracture toughness
- Capable of high-speed cutting (*up to 3000SFM*)



Recommended Cutting Conditions

Material	Work piece	Applications	Cutting speed (SFM)	Feed	Coolant
SX1	Cast Iron	Turning	~3,000	~.025IPR	DRY (WET)
		Milling	~3,000	~.012IPT	

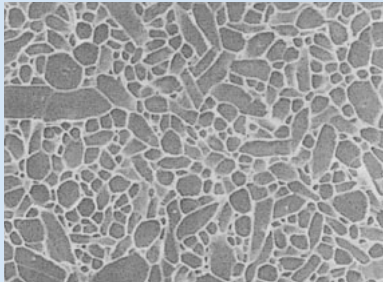


Data

Physical Characteristics

Material	Density (g/m³)	Hardness (HRA)	Bending strength (M Pa)	Young's modulus (GPA)	Thermal expansion coefficient (X10 ⁻⁶ /K)
SX1	3.2	93.5	1,200	320	3.0
SX8	3.2	93	1,200	320	3.0

Micro structure of **SX1**



Case Study

Disc brake	250 (Gray Cast Iron)
Insert: SNGX 454 T0825	
Cutting speed (SFM)	2400
Feed (IPR)	.025
Depth of cut (INCH)	.080
Coolant	DRY
SX1	150 pcs
Ceramic	100 pcs

Housing	250 (Gray Cast Iron)
Insert: CNGA 433 T0825	
Cutting speed (SFM)	560 - 1100
Feed (IPR)	.012
Depth of cut (INCH)	.100
Coolant	DRY
SX1	200 pcs
CBN	120 pcs

SX1

Shape	Item-No.	SX1
	CNG 432 T0825	●
	433 T0825	●
	434 T0825	●
	453 T0825	●
	454 T0825	●
	CNGA 431 T0825	●
	432 T0825	●
	433 T0825	★
	434 T0825	●
	543 T0825	●
	544 T0825	●
	643 T0825	●
	644 T0825	●
	648 T0825	●
	CNGA 432 WL T0425	●
	433 WL T0425	●
	434 WL T0225	●
	WL T0425	●
	CNGA 432 WLM T0425	●
	433 WLM T0425	●
	CNGX 452 T0825 DP5	●
	453 T0825 DP5	●
	454 S0825 DP5	●
	T0425 DP5	●
	T0825 DP5	●
	DNG 433 T0825	★
	DNGA 432 T0825	●
	433 T0825	★
	DNGX 120712 T0820 DP5	●
	120716 T0825 DP5	●
	452 T0825 DP5	●
	453 T0825 DP5	●
	454 T0825 DP5	●
	LNK 324-02 T0420	●
	324-03 T0420	●
	324-04 T0420	●
	RNG 43 T0825	●
	45 T0825	●
	SCG 333 T0425	●
	433 T0425	●
	SDCW 432 T0420	●
	433 T0420	●
	434 T0420	●
	43 AE T0420	●
	EE T0420R	●
	PE T0420R	●
	SNG 322 T0425	●
	432 T0420	●
	T0425	★
	T0825	●
	433 T0420	●
	T0825	★
	434 T0420	●
	T0825	●
	438 T0825	●
	454 T0825	●
643 T0825	●	

Shape	Item-No.	SX1
	SNG 43 EN TN	●
	SNGA 432 T0825	●
	433 T0825	●
	434 T0825	●
	543 T0825	●
	544 T0825	●
	SNGA 432 WB T0425	●
	433 WB T0425	●
	434 WB T0425	●
	SNGA 432 WH T0425	●
	433 WH T0425	●
	434 WH T0425	●
	SNGA 432 WHM T0425	●
	433 WHM T0425	●
	SNGF 433 TRCC413	●
	SNGX 452 T0825 DP5	●
	454 S0825 DP5	●
	T0425 DP5	●
	T0825 DP5	●
	554 T0825 DP5	●
	SPG 422 T0425	●
	423 T0425	●
	424 T0425	●
	433 T0825	●
	434 T0425	●
	T0820	●
	633 T0425	●
634 T0425	●	
636 T0425	●	
	TNG 332 T0825	★
	333 T0825	★
	334 T0825	★
	335 T0425	●
	T0825	★
	432 T0825	●
	433 T0825	●
	434 T0825	●
	438 T0825	●
		TNGA 332 T0425
333 T0425		●
T0825		★
432 T0825		●
433 T0825		●
434 T0825	●	
	TPG 322 T0425	●
	432 T0425	●
	VNGA 332 T0425	●
	333 T0425	●
	WNGA 432 T0825	●
	433 T0825	●
	434 T0825	●

● : Stock ★ : 2 weeks delivery