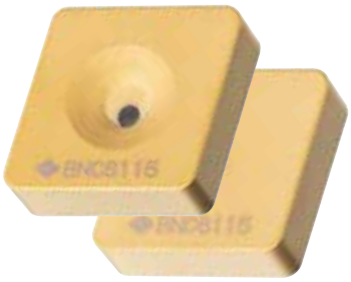
Coated SUMIBORON

BNC8115

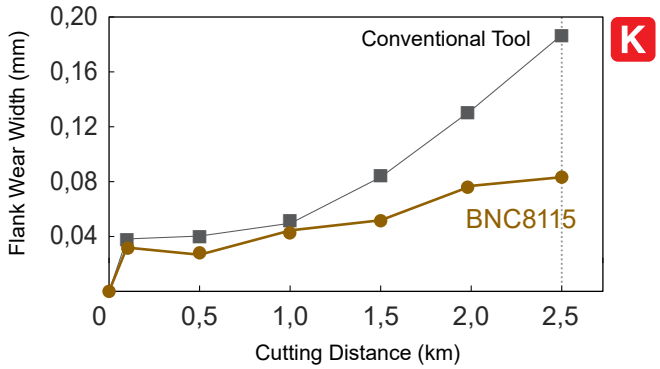


Characteristics

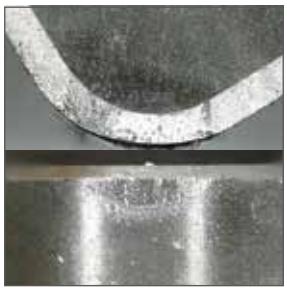
PVD coating with excellent wear resistance suppresses flank wear in machining of cast iron and hardened steel.
Ideal for roughing and 0,5 mm to 3,0 mm depths of cut can also be used for roughing and finishing of grey cast iron.
Gold-colored coating for improved visibility of used corners.

Wear Resistance (Ductile Cast Iron Machining)

Adopts a PVD coating with excellent wear resistance in ductile cast iron machining.
Significantly suppresses flank wear compared to conventional solid CBN.



BNC8115
(After cutting 2,5 km)

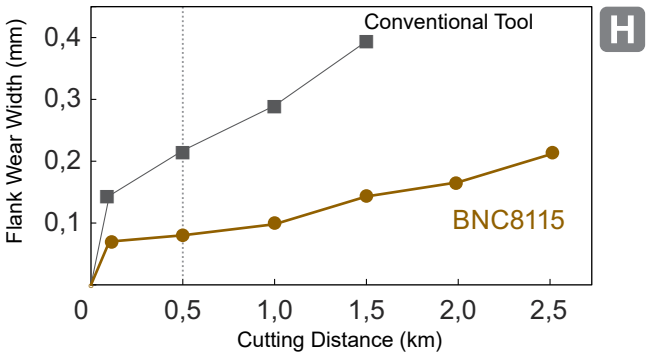


Conventional Tool
(uncoated)
(After cutting 2,5 km)

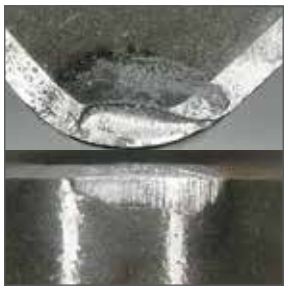
Work Material:	GGG-40.3 (Round Bar)	Cutting Conditions:	v_c = 300 m/min, f = 0,2 mm/rev, a_p = 0,2 mm, wet
Insert:	SNGN090308		

Wear Resistance (Hardened Steel Machining)

The use of PVD coating with excellent wear resistance on a high-strength solid CBN substrate realises high fracture resistance and wear resistance even in hardened steel machining.



BNC8115
(After cutting 0,5 km)



Conventional Tool
(uncoated)
(After cutting 0,5 km)

Work Material:	SUJ2 58-62 HRC (Round Bar)	Cutting Conditions:	v_c = 150 m/min, f = 0,2 mm/rev, a_p = 0,3 mm, wet
Insert:	SNGN090308		

SUMIBORON

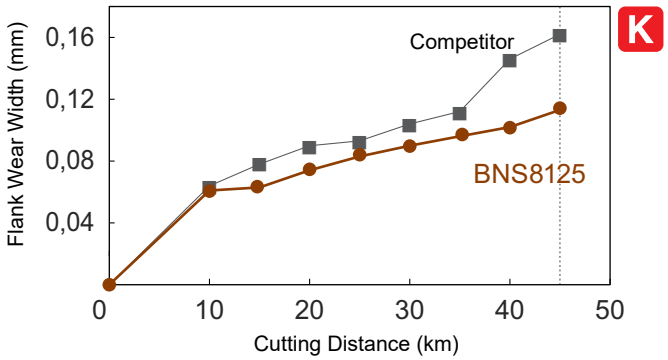
BNS8125

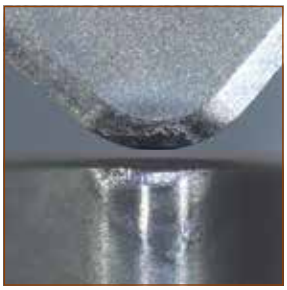
Characteristics

Optimising the particle size distribution on the CBN particles has resulted in improved chipping resistance and longer life with maintaining wear resistance during grey cast iron machining.

Wear Resistance (Grey Cast Iron Machining)

Optimises grain size distribution of CBN particles.
Realises excellent wear resistance in high-efficiency grey cast iron machining.





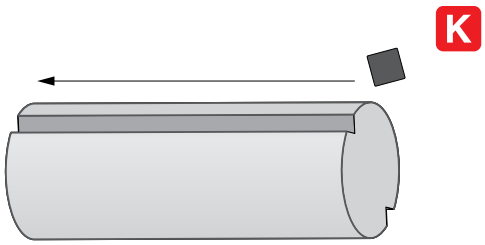
BNS8125
(After cutting 45 km)

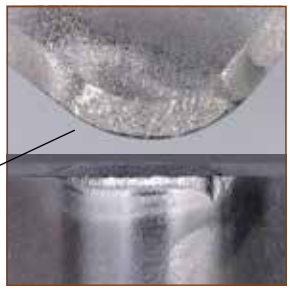
Competitor
(uncoated)
(After cutting 45 km)

Work Material:	GGG-30 (Round Bar)	Cutting Conditions:	v_c = 800 m/min, f = 0,1 mm/rev, a_p = 0,2 mm, wet
Insert:	SNGN090308		

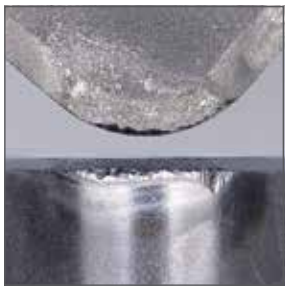
Fracture Resistance (Ductile Cast Iron Machining)

Use of high-strength solid CBN substrate improves fracture resistance.
Suppresses chipping to realise longer tool life.





BNS8125
(After cutting 9,0 km)



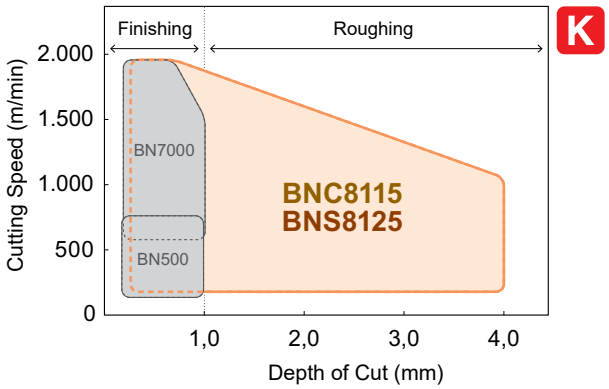
Conventional Tool
(uncoated)
(After cutting 9,0 km)

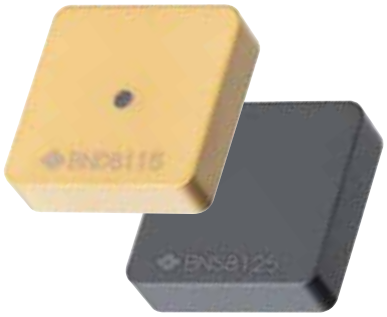
Work Material:	GGG-40.3 (Round Bar with 2 V-grooves)	Cutting Conditions:	v_c = 200 m/min, f = 0,2 mm/rev, a_p = 0,5 mm, wet
Insert:	SNGN120408		

BNC8115/BNS8125

Application Range

Grey Cast Iron

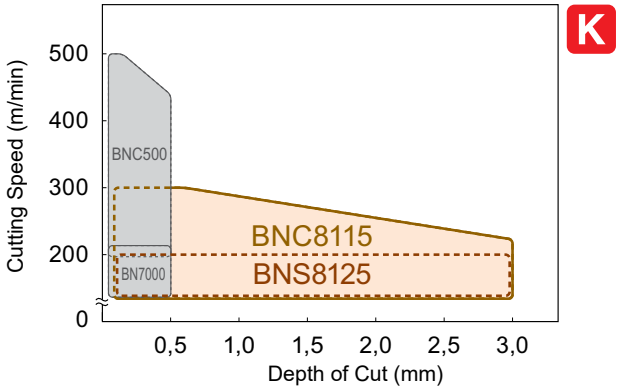




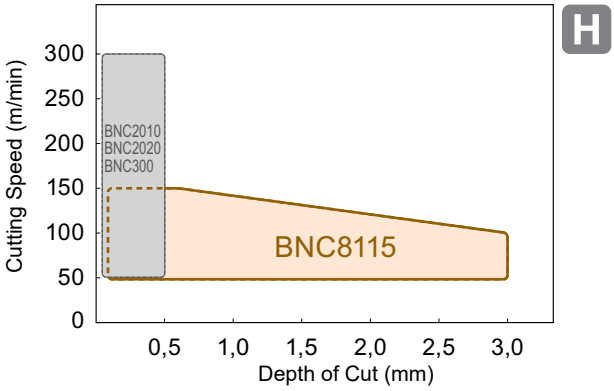
100% Solid CBN Structure

Wet machining is recommendet for grey cast iron.
In case of dry machining, our 1st recommendation are BNC8115/ BNS8125 for both roughing and finishing.

Ductile Cast Iron



Hardened Steel



Choosing between BNC8115 and BNS8125 (Cast Iron/Hardened Steel)

Work Material		Coated SUMIBORON **BNC8115** Turning		Coated SUMIBORON **BNC8115** Milling		SUMIBORON **BNS8125** Turning		SUMIBORON **BNS8125** Milling		SUMIBORON BN7000 Turning		SUMIBORON BN7000 Milling		Coated SUMIBORON BNC500 Turning		Coated SUMIBORON BNC2020 Turning	
K	Grey Cast Iron	○	Best			○	Best Economical			○	Depth of cut ≤ 1,0 mm High-speed-finishing			×	Not available	×	Not available
K	Ductile Cast Iron	○	Depth of cut ≥ 0,5 mm			○	Interrupted machining			○	Depth of cut ≤ 0,5 mm Low-speed-machining			○	Depth of cut ≤ 0,5 mm	×	Not available
H	Hardened Steel	○	Depth of cut ≥ 0,5 mm			×	Not available			×	Not available			×	Not available	○	Depth of cut ≤ 0,5 mm High-speed-machining

○ Recommendation × Not available