



SUMITOMO

CARBIDE - CBN - DIAMOND

BN7000



- Maximum CBN content for high resistance to both wear and breakage
- Stable performance and long tool life for high speed finishing of cast iron

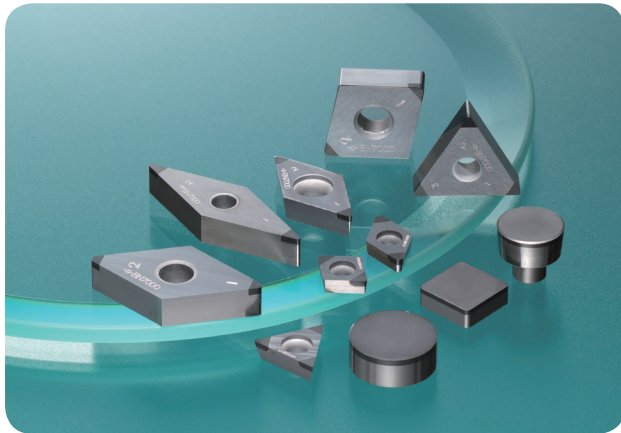
High Performance Turning Systems

CBN grade for machining of cast iron and ferrous powdered metal



BN7000

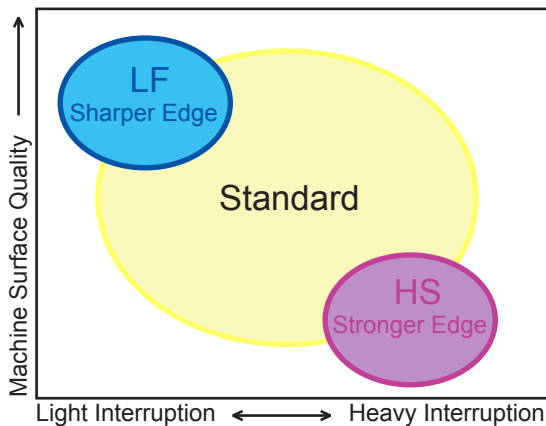
for cast iron machining



Features & Benefits

- CBN particles are densely sintered for the maximum CBN content possible resulting in high wear and breakage resistance
- The strength of CBN particles provides excellent chipping resistance, ensures stable performance and long tool life in high-efficiency machining of cast iron
- Excellent wear and thermal crack resistance in high speed machining of grey cast iron
- Optimize cast iron applications with three different edge preparations: Standard, LF (Sharper) and HS (Stronger)

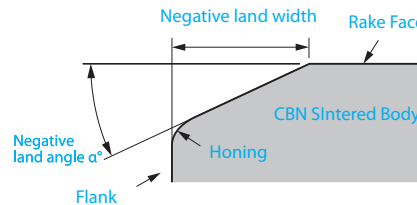
Edge Preparation



Edge Preparation Performance Range:

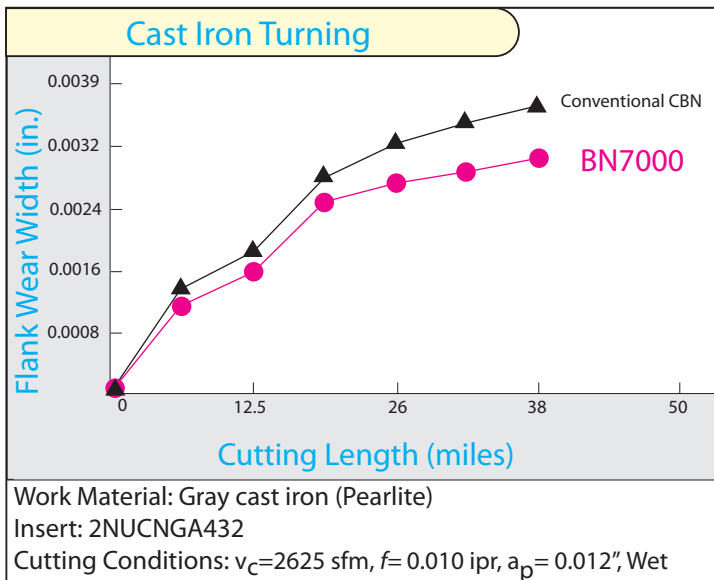
LF Type: Extra sharp edge that is able to provide a high quality machined surface.

HS Type: Extra tough edge for heavy interrupted machining applications.



Edge Type	α	W (in)	Honing
Standard	15°	0.005	No
LF	0° (No Negative Land)		
HS	25°	0.005	Yes

Machined Surface Comparison



Recommended Running Conditions

Material Name	V_C (sfm)	f (ipr)	a_p (inch)
Grey Cast Iron	1640 - 6560	.004 - .020	$\leq .039$
Alloy Cast Iron	660 - 2620	.004 - .016	$\leq .019$
Ductile Cast Iron	260 - 660	.004 - .016	$\leq .024$
Sintered Alloy	160 - 410	.0012 - .008	.002 - .020

Single Cornered Full Tip Negative (With hole)							
Appearance	Product Code	Stock	Dimensions				
			IC	Thickness	Nose Radius	Hole Size	Max DOC
	CNMA432	●	0.500	0.1875	0.031	0.2031	0.050
	CNMA433	●	0.500	0.1875	0.047	0.2031	0.050
	DNMA432	●	0.500	0.1875	0.031	0.2031	0.050
	DNMA433	●	0.500	0.1875	0.047	0.2031	0.050
	SNMA432	●	0.500	0.1875	0.031	0.2031	0.050
	SNMA433	●	0.500	0.1875	0.047	0.2031	0.050
	VNMA331	●	0.375	0.1875	0.016	0.150	0.050
	VNMA332	●	0.375	0.1875	0.031	0.150	0.050
Single Cornered Full Tip Positive (Without hole)							
	TPG221	●	0.250	0.125	0.016	-	0.050
	TPG222	●	0.250	0.125	0.031	-	0.050
	TPG322	●	0.375	0.125	0.031	-	0.050
	TPG323	●	0.375	0.125	0.047	-	0.050
Single Cornered Mini-tip Negative (With hole)							
	NUTNMA331	●	0.375	0.1875	0.016	0.150	0.015
Single Cornered Mini-tip Positive (With hole)							
	NUTPGA221	●	0.250	0.125	0.016	0.130	0.015
	NUTPGD630.5	●	0.094	0.094	0.008	0.090	0.015
	NUTPGD631	●	0.094	0.094	0.016	0.090	0.015
Full Top Negative (Without hole)							
	RNG32B	●	0.375	0.125	-	-	0.050
	RNG43B	●	0.500	0.1875	-	-	0.050
Full Top Positive (Without hole)							
	RCGX102	●	0.250	0.309	-	-	0.050
	RCGX103	●	0.375	0.309	-	-	0.050
	RCGX104	●	0.500	0.312	-	-	0.050
	TBGE521B	●	0.156	0.0625	0.016	-	0.050
Inserts for BNZ Holders							
	NUZNEX621	●	0.188	0.0625	0.016	0.090	0.015
Inserts for BRC Cutter							
	RDHX0701M0T	●	0.276	0.078	-	-	0.020
	RDHX0702M0T	●	0.276	0.094	-	-	0.020
Inserts for FMU Cutter							
	SNEW1203ADTR	●	0.500	0.125	-	-	0.020
Multi Cornered Mini-tip Negative (With hole)							
	2NUCNGA431	●	0.500	0.1875	0.016	0.2031	0.015
	2NUCNGA431HS	●	0.500	0.1875	0.016	0.2031	0.015
	2NUCNGA431LF	●	0.500	0.1875	0.016	0.2031	0.015
	2NUCNGA432	●	0.500	0.1875	0.031	0.2031	0.015
	2NUCNGA432HS	●	0.500	0.1875	0.031	0.2031	0.015
	2NUCNGA432LF	●	0.500	0.1875	0.031	0.2031	0.015
	2NUCNGA433	●	0.500	0.1875	0.047	0.2031	0.015
	2NUDNGA431	●	0.500	0.1875	0.016	0.2031	0.015
	2NUDNGA431LF	●	0.500	0.1875	0.016	0.2031	0.015
	2NUDNGA432	●	0.500	0.1875	0.031	0.2031	0.015
	2NUDNGA432HS	●	0.500	0.1875	0.031	0.2031	0.015
	2NUDNGA432LF	●	0.500	0.1875	0.031	0.2031	0.015
	2NUDNGA433	●	0.500	0.1875	0.047	0.2031	0.015
	2NUDNGA433HS	●	0.500	0.1875	0.047	0.2031	0.015

Multi Cornered Mini-tip Negative (With hole) - Continued										
Appearance	Product Code	Stock	Dimensions							
			IC	Thickness	Nose Radius	Hole Size	Max DOC			
	3NUTNGA331	●	0.375	0.1875	0.016	0.150	0.015			
	3NUTNGA332	●	0.375	0.1875	0.031	0.150	0.015			
	3NUTNGA332HS	●	0.375	0.1875	0.031	0.150	0.015			
	2NUVNGA331	●	0.375	0.1875	0.016	0.150	0.015			
	2NUVNGA332	●	0.375	0.1875	0.031	0.150	0.015			
	2NUVNGA332HS	●	0.375	0.1875	0.031	0.150	0.015			
	2NUVNGA332LF	●	0.375	0.1875	0.031	0.150	0.015			
	2NUVNGA333	●	0.375	0.1875	0.047	0.150	0.015			
	3NUWNGA432	●	0.500	0.1875	0.031	0.2031	0.015			
	3NUWNGA433	●	0.500	0.1875	0.047	0.2031	0.015			
Multi Cornered Mini-tip Positive (Without hole)										
	3NUTPG221	●	0.250	0.125	0.016	-	0.015			
	3NUTPG222	●	0.250	0.125	0.031	-	0.015			
	3NUTPG322	●	0.375	0.125	0.031	-	0.015			
Multi Cornered Mini-tip Positive (With hole)										
	2NUCCGA21.50.5	●	0.250	0.094	0.016	0.110	0.015			
	2NUCCGA21.51	●	0.250	0.094	0.016	0.110	0.015			
	2NUCCGA21.52	●	0.250	0.094	0.031	0.110	0.015			
	2NUCCGA32.51	●	0.375	0.156	0.016	0.1732	0.015			
	2NUCCGA32.52	●	0.375	0.156	0.031	0.1732	0.015			
	2NUCCGA431	●	0.500	0.1875	0.016	0.1732	0.015			
	2NUCCGA432	●	0.500	0.1875	0.031	0.1732	0.015			
	2NUCPGA32.51	●	0.375	0.156	0.016	0.1732	0.015			
	2NUCPGA32.52	●	0.375	0.156	0.031	0.1732	0.015			
	2NUDCGA21.50.5	●	0.250	0.094	0.016	0.110	0.015			
	2NUDCGA21.51	●	0.250	0.094	0.016	0.110	0.015			
	2NUDCGA21.52	●	0.250	0.094	0.031	0.110	0.015			
	2NUDCGA32.51	●	0.375	0.156	0.016	0.1732	0.015			
	2NUDCGA32.52	●	0.375	0.156	0.031	0.1732	0.015			
	2NUVBGA221	●	0.250	0.125	0.016	0.134	0.015			
	2NUVBGA222	●	0.250	0.125	0.031	0.134	0.015			
	2NUVBGA331	●	0.375	0.1875	0.016	0.1732	0.015			
	2NUVBGA331HS	●	0.375	0.1875	0.016	0.1732	0.015			
	2NUVBGA332	●	0.375	0.1875	0.031	0.1732	0.015			
	3NUTCGA21.51	●	0.250	0.094	0.016	0.110	0.015			
	3NUTCGA21.51LF	●	0.250	0.094	0.016	0.110	0.015			
	3NUTCGA21.52	●	0.250	0.094	0.031	0.110	0.015			
	3NUTCGA32.51	●	0.375	0.156	0.016	0.1693	0.015			
	3NUTCGA32.52	●	0.375	0.156	0.031	0.1693	0.015			
	3NUTPGA21.51	●	0.250	0.094	0.016	0.110	0.015			
	3NUTPGA21.52	●	0.250	0.094	0.031	0.110	0.015			
	3NUTPGA220.5	●	0.250	0.125	0.016	0.130	0.015			
	3NUTPGA221	●	0.250	0.125	0.016	0.130	0.015			
	3NUTPGA222	●	0.250	0.125	0.031	0.130	0.015			
	3NUTPGA331	●	0.375	0.1875	0.016	0.1693	0.015			
	3NUTPGA332	●	0.375	0.1875	0.031	0.1693	0.015			
Multi Cornered Mid-tip Negative (With hole)										
	2MDCNGA432	●	0.500	0.1875	0.031	0.2031	0.030			
	2MDDNGA432	●	0.500	0.1875	0.031	0.2031	0.030			



SUMITOMO

CARBIDE - CBN - DIAMOND

Sumitomo Electric Carbide, Inc.

Headquarters

1001 Business Center Drive
Mount Prospect, IL 60056-2181
P.O. Box 545, Mt. Prospect, IL 60056-0545
Phone: (800) 950-5202
Phone: (847) 635-0044
Fax: (847) 635-7866
<http://www.sumicarbide.com>

Sumitomo Electric Tool Engineering Center

5637 S. Westridge Drive
New Berlin, WI 53151
Phone: (800) 950-5202

Cincinnati Branch

4450 Carver Woods Drive
Cincinnati, OH 45242-5545
Phone: (800) 879-1887
Phone: (513) 891-4000
Fax: (513) 794-2911

Torrance Branch

21221 South Western Avenue
Suite 200
Torrance, CA 90501
Phone: (800) 950-5202
Fax: (310) 782-0211

Sumitomo Hardmetal Mexico (SHMM)

Avenida Universidad #1703-A
Fracc. Lomas del Campestre
Aguascalientes, AGS Mexico
Phone: 011-52-449-993-2740
Fax: 011-52-449-993-2753

Detroit Branch

14496 Sheldon Road #230
Plymouth, MI 48170
Phone: (800) 239-5177
Phone: (734) 451-0200
Fax: (734) 451-5338

Huntsville Branch

5650 Sanderson Street NW
Suite J
Huntsville, AL 35805
Phone: (256) 895-2845
Fax: (256) 895-3150

Sumicarbide Canada, Inc.

2600 Skymark Avenue
Building 6, Suite 103
Mississauga, ON L4W 5B2
Canada
Phone: (905) 282-9986
Fax: (905) 282-9984



For more information log onto:
www.sumicarbide.com