

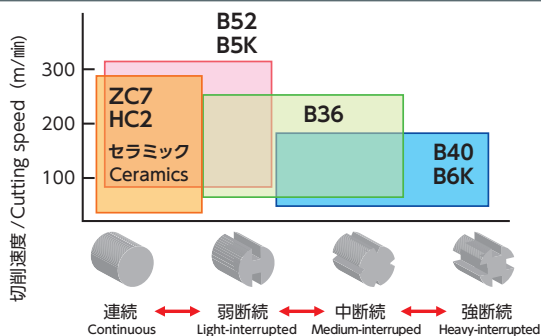
材種紹介 Grade Introduction

形状 Shape	材種名 Grade	CBN含有量 CBN Volume	主バインダ Main Binder	主用途 Main Uses	
コーティング Coated	B6K	TiCNコート TiCN coated	65%	TiCN系	高硬度材の強断続加工 Heavy-interrupted cutting of hardened steel
	B5K		50%	TiC系	ダクタイル鑄鉄の仕上げ加工及び高硬度材の連続加工 Finishing of ductile iron. Continuous cutting of hardened steel
ノンコート Non-Coated	B23		90%	Ti系	普通鑄鉄の高速粗加工 / 焼結合金 High speed roughing of gray cast iron / Sintered alloy
	B30		95%	Ti系	普通鑄鉄の高速仕上げ加工 High speed finishing of gray cast iron
	B40		65%	TiN系	高硬度材の強断続加工 Heavy-interrupted cutting of hardened steel
	B36		65%	TiCN系	高硬度材の軽～強断続加工 Light and heavy interrupted cutting of hardened steel
	B52		50%	TiC系	ダクタイル鑄鉄の仕上げ加工及び高硬度材の連続加工 Finishing of ductile iron. Continuous cutting of hardened steel

セラミックの詳細はP14をご参照願います。
See page 14 for more information about Ceramics.

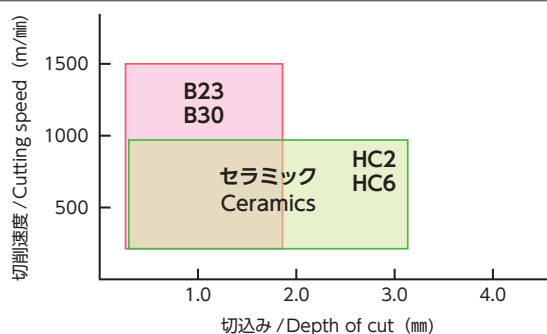
選定ガイド Application Guide

高硬度材(仕上げ) / Hardened Steel(Finish)



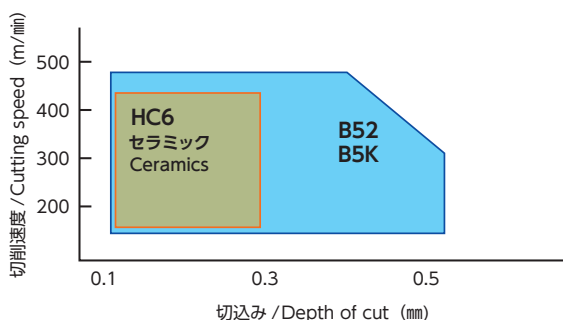
断続の強さ Strength of interruption	推奨工具 Recommended tool		切削速度 Cutting (m/min)	送り Feed (mm/rev)	切込み Depth of cut (mm)	切削油 Coolant	
	材種 Grade	洗処理 Edge preparation				DRY	WET
連続加工 Continuous	B5K (B52)	SCD	100 ~ 300	~ 0.2		△	●
軽～中断続加工 Light-interrupted-Medium-interrupted	B6K (B36)	SXF	75 ~ 225	~ 0.15	~ 0.5	●	△
強断続加工 Heavy-interrupted	B40	SHE	50 ~ 150	~ 0.1		●	△

普通鑄鉄 / Gray Cast Iron



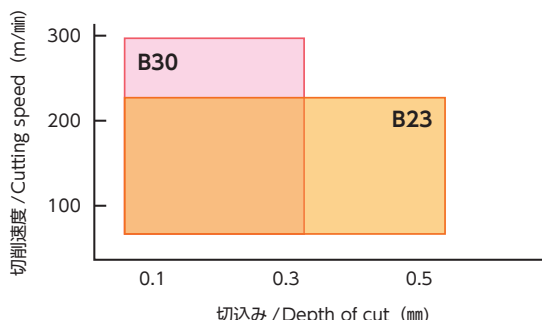
断続の強さ Strength of interruption	推奨工具 Recommended tool		切削速度 Cutting (m/min)	送り Feed (mm/rev)	切込み Depth of cut (mm)	切削油 Coolant	
	材種 Grade	洗処理 Edge preparation				DRY	WET
連続加工 Continuous	B30	TCE				△	●
軽～中断続加工 Light-interrupted-Medium-interrupted	B30	TCE	400 ~ 1,200	~ 0.5	~ 2.0	●	△
強断続加工 Heavy-interrupted	B23	SCE				●	△

ダクタイル鑄鉄(仕上げ) / Ductile Cast Iron(Finish)



断続の強さ Strength of interruption	推奨工具 Recommended tool		切削速度 Cutting (m/min)	送り Feed (mm/rev)	切込み Depth of cut (mm)	切削油 Coolant	
	材種 Grade	洗処理 Edge preparation				DRY	WET
連続加工 Continuous	B5K (B52)	SCD				●	△
軽～中断続加工 Light-interrupted-Medium-interrupted	B5K (B52)	SXF	100 ~ 450	~ 0.4	~ 0.5	●	△
強断続加工 Heavy-interrupted	B5K (B52)	SHE				●	△

焼結合金 / Sintered alloy



断続の強さ Strength of interruption	推奨工具 Recommended tool		切削速度 Cutting (m/min)	送り Feed (mm/rev)	切込み Depth of cut (mm)	切削油 Coolant	
	材種 Grade	洗処理 Edge preparation				DRY	WET
連続加工 Continuous	B30	TCE				△	●
軽～中断続加工 Light-interrupted-Medium-interrupted	B30	TCE	40 ~ 300	~ 0.5	~ 0.5	△	●
強断続加工 Heavy-interrupted	B23	SCE				△	●

●第1推薦 First choice △第2推薦 Second choice

「EZ-CUBE」品番呼称と刃先処理 EZ-CUBE Designation and Edge Preparation

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	
B	5	2	C	N	G	A	1	2	0	4	0	4	P	Q	(W)	S	C	D

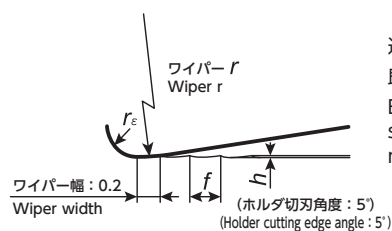
- ①②③…材種名 Grade ④…チップ形状 Insert Shape ⑤…ボジ角度 Cords for relief angle sign
- ⑥…研磨等級 Cords for accuracy ⑦…穴・ブレーカ Cords for grooved holes・Chipbreaker
- ⑧⑨…チップサイズ Size of Inserts ⑩⑪…チップ厚み Cords of thickness
- ⑫⑬…コーナR Cords for Corner Radius
- ⑭…CBN片 CBN (P=標準サイズ B=ビッグ(標準よりサイズ大) P=standard size B=bigger than the standard size)

⑮…コーナ数 CBN Corner

記号 Code	S	D	T	Q	H	E
コーナ数 Number of corner	1	2	3	4	6	8

●ワイパー刃 / Wiper

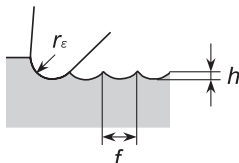
⑯…ワイパー刃 Wiper
Wが有る場合はワイパー刃付きです。 "W" shows it has a Wiper.



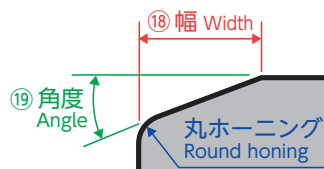
通常のコーナの場合
In Normal corner radius

$$h = \frac{f^2}{8 r_e} \times 1000$$

h : 理論表面粗さ theoretical surface roughness (μm)
 f : 送り量 Feed (mm/rev)
 r_e : コーナ半径 Corner radius (mm)



●刃先処理 / Edge preparation



⑰ 形状 shape	⑱ 幅 Width	⑲ 角度 Angle
F シャープエッジ Sharp edge	B 0.05	D 15°
T 角度チャンファ Chamfer angle	C 0.1	E 20°
Z 角度チャンファ+丸ホーニングR0.02 Chamfer angle+Round honingR0.02	X 0.13	F 25°
S 角度チャンファ+丸ホーニングR0.03 Chamfer angle+Round honingR0.03	E 0.15	H 35°

↑ 切れ味 Sharpness
↓ 刃先強度 Edge strength

刃先処理の違いによる性能差 Performance comparison by edge preparation

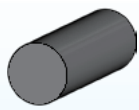
切削抵抗 Cutting force

被削材: SCM415(HRC63-65)
Material: SCM415(HRC63-65)

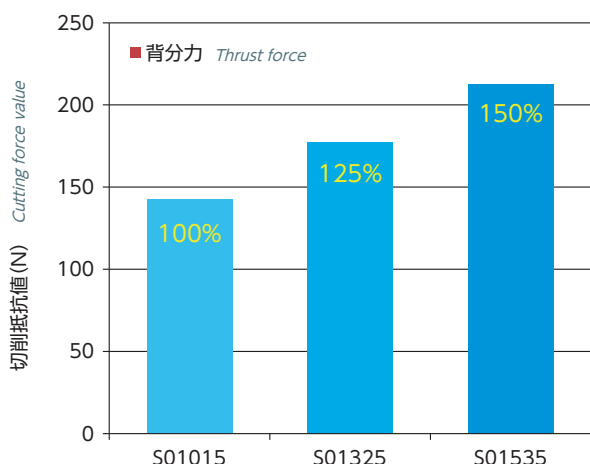
チップ形状: TNGA160408
Insert: TNGA160408

切削条件: $vc=200\text{m/min}$, $f=0.1\text{mm/rev}$, $ap=0.2\text{mm}$, DRY

Cutting parameters: $vc=200\text{m/min}$, $f=0.1\text{mm/rev}$, $ap=0.2\text{mm}$, DRY



連続加工
Continuous cutting



刃先処理が大きくなる程、切削抵抗が増大。
特に背分力への影響が大きい。

The bigger edge preparation is, the larger cutting force goes up.
Especially affect a lot in thrust force.

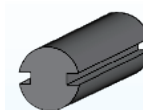
耐欠損性 Fracture resistance

被削材: SCM415(HRC63-65) ※強断続※
Material: SCM415(HRC63-65) ※Hard interrupt ※

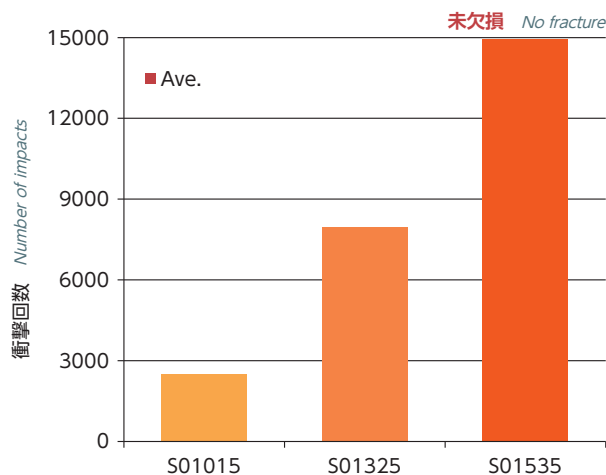
チップ形状: TNGA160408
Insert: TNGA160408

切削条件: $vc=75\text{m/min}$, $f=0.1\text{mm/rev}$, $ap=0.3\text{mm}$, DRY

Cutting parameters: $vc=75\text{m/min}$, $f=0.1\text{mm/rev}$, $ap=0.3\text{mm}$, DRY



強断続加工
Hard interrupt cutting






刃先処理が大きくなる程、耐欠損性能が向上。

The bigger edge preparation is, the more fracture resistance improves.

加工事例はP12・P13をご参照ください。
See page 12・13 for application example


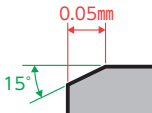
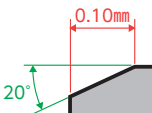
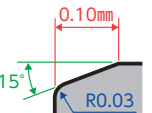
品番表 Description table

標準在庫品 / Stock list



ネガティブ Negative								PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN								
形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	B5K	B6K	B23	B30	B36	B40	B52				
 4コーナ仕様 4 cutting edges	CNGA 120402 PQ TCE	T01020	12.7	4.76	0.2	4	2.3				●							
	120402 PQ SCD	S01015									●	●	●					
	120402 PQ SXF	S01325								●	●	●						
	120402 PQ SEH	S01535								●	●	●						
	120404 PQ F	シャープエッジ Sharpedge			T01020			0.4						●				
	120404 PQ TCE	S01015								●	●	●	●					
	120404 PQ SCD	S01015								●	●	●	●					
	120404 PQ SCE	S01020								●				●	●	●		
	120404 PQ SXF	S01325							●				●	●	●			
	120404 PQ SEH	S01535							●				●	●	●			
	120408 PQ F	シャープエッジ Sharpedge			T00515			0.8						●				●
	120408 PQ TBD	T00515												●				
	120408 PQ TCE	T01020												●				
	120408 PQ SCD	S01015								●	●	●	●	●	●	●		
	120408 PQ SCE	S01020							●				●			●	●	
	120408 PQ SXF	S01325							●				●			●	●	
	120408 PQ SEH	S01535							●				●			●	●	
	120412 PQ F	シャープエッジ Sharpedge			T00515			1.2							●			●
	120412 PQ TBD	T00515													●			
	120412 PQ TCE	T01020													●			
	120412 PQ SCD	S01015								●	●	●	●	●	●	●		
	120412 PQ SCE	S01020							●				●			●	●	
	120412 PQ SXF	S01325							●				●			●	●	
	120412 PQ SEH	S01535							●				●			●	●	
	120416 PQ TCE	T01020						1.6							●			
	120416 PQ SCD	S01015													●		●	●
	120416 PQ SCE	S01020													●		●	●
	120416 PQ SXF	S01325												●			●	●
120416 PQ SEH	S01535									●	●	●						
120420 PQ TCE	T01020		2.0							●								
120420 PQ SCD	S01015									●		●	●					
120420 PQ SCE	S01020									●		●	●					
120420 PQ SXF	S01325								●			●	●					
120420 PQ SEH	S01535									●	●	●						
 ワイパー with wiper	CNGA 120404 PQ W SCD	S01015	12.7	4.76	0.4	4	2.3					●	●	●				
	120404 PQ W SEH	S01535												●	●	●		
	120408 PQ W SCD	S01015													●	●	●	
	120408 PQ W SEH	S01535													●	●	●	
120412 PQ W SCD	S01015		1.2									●	●					
120412 PQ W SEH	S01535											●	●					
 2コーナ仕様 2 cutting edges	CNGA 120404 PD F	シャープエッジ Sharpedge	12.7	4.76	0.4	2 (片面) one side	2.3				●			●				
	120408 PD F	シャープエッジ Sharpedge			0.8					●								
	120412 PD F	シャープエッジ Sharpedge			1.2					●								

● 刃先処理 / Edge Preparation



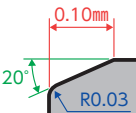
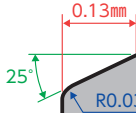
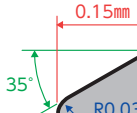
品番 : F (刃先仕様 : シャープエッジ) Part number : F (Edge specification : Sharp edge)	品番 : TBD (刃先仕様 : T00515) Part number : TBD (Edge specification : T00515)	品番 : TCE (刃先仕様 : T01020) Part number : TCE (Edge specification : T01020)	品番 : SCD (刃先仕様 : S01015) Part number : SCD (Edge specification : S01015)
			

ネガティブ Negative

形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN																												
								B5K	B6K	B23	B30	B36	B40	B52																								
 4コーナ仕様 4 cutting edges	DNGA 150402 PQ TCE	T01020	12.7	4.76	0.2	4	2.4																															
	150402 PQ SCD	S01015																																				
	150402 PQ SXF	S01325																																				
	150402 PQ SEH	S01535																																				
	150404 PQ F	シャープエッジ Sharpedge						T01020	12.7	4.76	0.4	4	2.2																									
	150404 PQ TCE	T01020																																				
	150404 PQ SCD	S01015																																				
	150404 PQ SCE	S01020																																				
	150404 PQ SXF	S01325																																				
	150404 PQ SEH	S01535																																				
	150408 PQ F	シャープエッジ Sharpedge						T01020						12.7	4.76	0.8	4	1.9																				
	150408 PQ TCE	T01020																																				
	150408 PQ SCD	S01015																																				
	150408 PQ SCE	S01020																																				
	150408 PQ SXF	S01325																																				
	150408 PQ SEH	S01535																																				
	150412 PQ F	シャープエッジ Sharpedge						T01020											12.7	4.76	1.2	4	2.6															
	150412 PQ TCE	T01020																																				
	150412 PQ SCD	S01015																																				
	150412 PQ SCE	S01020																																				
	150412 PQ SXF	S01325																																				
	150412 PQ SEH	S01535																																				
	150416 PQ TCE	T01020																																				
	150416 PQ SCD	S01015																																				
	150416 PQ SCE	S01020																																				
	150416 PQ SXF	S01325																																				
	150416 PQ SEH	S01535																																				
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150604 PQ SCD	S01015																																					
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150608 PQ TCE	T01020																																					
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 2コーナ仕様 2 cutting edges	DNGA 150404 PD F	シャープエッジ Sharpedge	12.7	4.76	0.4	2 (片面) one side	2.2																															
	150408 PD F	シャープエッジ Sharpedge			0.8		1.9																															
	150412 PD F	シャープエッジ Sharpedge			1.2		2.6																															



● : 標準在庫品 Stock

刃先強度 Edge Strongness

品番 : SCE (刃先仕様 : S01020) Part number : SCE (Edge specification : S01020)	品番 : SXF (刃先仕様 : S01325) Part number : SXF (Edge specification : S01325)	品番 : SEH (刃先仕様 : S01535) Part number : SEH (Edge specification : S01535)
		


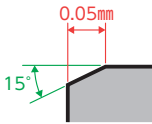
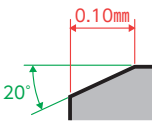
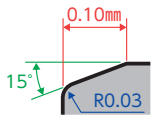
品番表 Description table

標準在庫品 / Stock list




ネガティブ Negative								PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN										
形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	B5K	B6K	B23	B30	B36	B40	B52						
 8コーナ仕様 8 cutting edges	SNGA 120402 PE SXF	S01325	12.7	4.76	0.2	8	2.3						●	●	●					
	120404 PE TCE	T01020			0.4		2.3						●				●	●		
	120404 PE SCD	S01015																●	●	
	120404 PE SCE	S01020																	●	●
	120404 PE SXF	S01325																	●	●
	120404 PE SEH	S01535																	●	●
	120408 PE TCE	T01020			0.8		2.3							●				●	●	
	120408 PE SCD	S01015																	●	●
	120408 PE SCE	S01020																	●	●
	120408 PE SXF	S01325																	●	●
	120408 PE SEH	S01535																	●	●
	120412 PE TCE	T01020			1.2		2.8								●				●	
	120412 PE SCD	S01015																	●	●
	120412 PE SCE	S01020																	●	●
	120412 PE SXF	S01325																	●	●
	120412 PE SEH	S01535																	●	●
120416 PE TCE	T01020	1.6	2.8									●			●					
120416 PE SCD	S01015														●	●				
120416 PE SXF	S01325														●	●				
 6コーナ仕様 6 cutting edges	TNGA 160401 PH F	シャープエッジ Sharpedge	9.525	4.76	0.1	6	2.1	●	●						●					
	160401 PH SCD	S01015						●	●									●	●	
	160401 PH SXF	S01325						●	●										●	●
	160401 PH SEH	S01535						●	●										●	●
	160402 PH F	シャープエッジ Sharpedge			0.2		2.2								●			●		
	160402 PH SCD	S01015						●	●										●	
	160402 PH SXF	S01325						●	●										●	
	160402 PH SEH	S01535						●	●										●	
	160404 PH F	シャープエッジ Sharpedge			0.4		2.0											●		
	160404 PH TCE	T01020						●	●										●	
	160404 PH SCD	S01015						●	●										●	
	160404 PH SCE	S01020						●	●										●	
	160404 PH SXF	S01325			●		●										●			
	160404 PH SEH	S01535			●		●										●			
	160408 PH F	シャープエッジ Sharpedge			0.8		1.7											●		
	160408 PH TCE	T01020						●	●										●	
	160408 PH SCD	S01015						●	●										●	
	160408 PH SCE	S01020						●	●										●	
	160408 PH SXF	S01325			●		●										●			
	160408 PH SEH	S01535			●		●										●			
	160412 PH F	シャープエッジ Sharpedge			1.2		2.3											●		
	160412 PH TCE	T01020						●	●										●	
	160412 PH SCD	S01015						●	●										●	
	160412 PH SCE	S01020						●	●										●	
160412 PH SXF	S01325	●	●										●							
160412 PH SEH	S01535	●	●										●							
160416 PH TCE	T01020	1.6	2.1											●						
160416 PH SCD	S01015			●	●										●					
160416 PH SXF	S01325			●	●										●					
160416 PH SEH	S01535			●	●										●					
220412 PH SCD	S01015	12.7	4.76	1.2	2.3									●						
220412 PH SEH	S01535															●				

● 刃先処理 / Edge Preparation



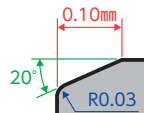
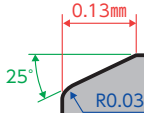
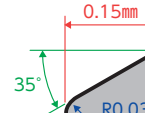
品番 : F (刃先仕様 : シャープエッジ) Part number : F (Edge specification : Sharp edge)	品番 : TBD (刃先仕様 : T00515) Part number : TBD (Edge specification : T00515)	品番 : TCE (刃先仕様 : T01020) Part number : TCE (Edge specification : T01020)	品番 : SCD (刃先仕様 : S01015) Part number : SCD (Edge specification : S01015)
			

ネガティブ Negative

形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN							
								B5K	B6K	B23	B30	B36	B40	B52			
 3コーナ仕様 3 cutting edges	TNGA 160402 PT F	シャープエッジ Sharpedge	9.525	4.76	0.2	3 (片面) one side	2.2					●					
	160404 PT F	シャープエッジ Sharpedge			0.4		2.0					●					
	160408 PT F	シャープエッジ Sharpedge			0.8		1.7					●					
	160412 PT F	シャープエッジ Sharpedge			1.2		2.3					●					
 4コーナ仕様 4 cutting edges	VNGA 160401 PQ SCD	S01015	9.525	4.76	0.1	4	2.7								●		
	160401 PQ SEH	S01535															●
	160402 PQ F	シャープエッジ Sharpedge			0.2		2.6						●				
	160402 PQ TCE	T01020											●				
	160402 PQ SCD	S01015						●				●	●	●			
	160402 PQ SXF	S01325			●					●	●	●					
	160402 PQ SEH	S01535			●					●	●	●					
	160404 PQ F	シャープエッジ Sharpedge			0.4		2.5						●			●	
	160404 PQ TCE	T01020											●				
	160404 PQ SCD	S01015						●	●			●	●	●			
	160404 PQ SXF	S01325						●	●			●	●	●			
	160404 PQ SEH	S01535			●		●			●	●	●					
	160408 PQ F	シャープエッジ Sharpedge			0.8		1.6						●			●	
	160408 PQ TCE	T01020											●				
	160408 PQ SCD	S01015						●	●			●	●	●			
	160408 PQ SXF	S01325						●	●			●	●	●			
160408 PQ SEH	S01535	●	●			●	●	●									
160412 PQ TCE	T01020	1.2	2.7						●			●					
160412 PQ SCD	S01015			●	●			●	●	●							
160412 PQ SXF	S01325			●	●			●	●	●							
160412 PQ SEH	S01535			●	●			●	●	●							
 2コーナ仕様 2 cutting edges	VNGA 160402 PD F	シャープエッジ Sharpedge	9.525	4.76	0.2	2 (片面) one side	2.6					●					
	160404 PD F	シャープエッジ Sharpedge			0.4		2.5					●					
	160408 PD F	シャープエッジ Sharpedge			0.8		1.6					●					
	160412 PD F	シャープエッジ Sharpedge			1.2		2.7					●					



● : 標準在庫品 Stock

刃先強度 Edge Strongness

品番 : SCE (刃先仕様 : S01020) Part number : SCE (Edge specification : S01020)	品番 : SXF (刃先仕様 : S01325) Part number : SXF (Edge specification : S01325)	品番 : SEH (刃先仕様 : S01535) Part number : SEH (Edge specification : S01535)
		

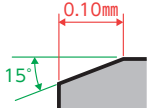
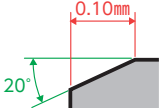
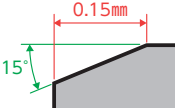
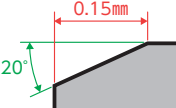
品番表 Description table

標準在庫品 / Stock list



ポジティブ Positive								PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN				
形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	B5K	B6K	B23	B30	B36	B40	B52
									CCGW 060202 PD F シヤープエッジ Sharpedge 060202 PD SCD S01015 060202 PD SXF S01325 060202 PD SEH S01535 060204 PD F シヤープエッジ Sharpedge 060204 PD SCD S01015 060204 PD SXF S01325 060204 PD SEH S01535 060208 PD F シヤープエッジ Sharpedge 060208 PD TEE T01520 060208 PD SCD S01015 060208 PD SXF S01325 060208 PD SEH S01535	6.35	2.38	0.2	2	2.3
	CCGW 09T302 PD F シヤープエッジ Sharpedge 09T302 PD SCD S01015 09T302 PD SXF S01325 09T302 PD SEH S01535 09T304 PD F シヤープエッジ Sharpedge 09T304 PD SCD S01015 09T304 PD SXF S01325 09T304 PD SEH S01535 09T308 PD F シヤープエッジ Sharpedge 09T308 PD SCD S01015 09T308 PD SXF S01325 09T308 PD SEH S01535 09T312 PD F シヤープエッジ Sharpedge 09T312 PD SCD S01015 09T312 PD SXF S01325	9.525	3.97	0.2	2	2.3				●	●	●	●	
	DCGW 070202 PD F シヤープエッジ Sharpedge 070202 PD SCD S01015 070202 PD SEH S01535 070204 PD F シヤープエッジ Sharpedge 070204 PD SCD S01015 070204 PD SEH S01535 070208 PD F シヤープエッジ Sharpedge 070208 PD SCD S01015 070208 PD SXF S01325 070208 PD SEH S01535 DCGW 11T301 PD SCD S01015 11T302 PD F シヤープエッジ Sharpedge 11T302 PD SCD S01015 11T302 PD SXF S01325 11T302 PD SEH S01535 11T304 PD F シヤープエッジ Sharpedge 11T304 PD TCD T01015 11T304 PD SCD S01015 11T304 PD SXF S01325 11T304 PD SEH S01535 DCGW 11T308 PD F シヤープエッジ Sharpedge 11T308 PD SCD S01015 11T308 PD SXF S01325 11T308 PD SEH S01535 11T312 PD SCD S01015	6.35	2.38	0.1	2	2.3							●	
		9.525	3.97	0.2	2	2.4	●			●	●	●	●	
				0.4	2	2.2				●	●	●	●	
				0.8	2	1.9					●	●	●	
				0.4	2	2.2	●			●	●	●	●	
				0.8	2	1.9					●	●	●	
				1.2	2	2.6						●	●	

● 刃先処理 / Edge Preparation



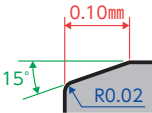
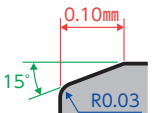
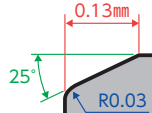
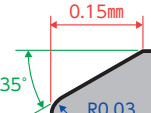
品番 : TCD (刃先仕様 : T01015) Part number : TCD (Edge specification : T01015)	品番 : TCE (刃先仕様 : T01020) Part number : TCE (Edge specification : T01020)	品番 : TED (刃先仕様 : T01515) Part number : TED (Edge specification : T01515)	品番 : TEE (刃先仕様 : T01520) Part number : TEE (Edge specification : T01520)
			

ポジティブ Positive

形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN						
								B5K	B6K	B23	B30	B36	B40	B52		
 4コーナ仕様 4 cutting edges	SCGW 09T304 PQ ZCD	Z01015	9.525	3.97	0.4	4	1.5					●				
	09T308 PQ ZCD	Z01015			0.8		1.3					●				
 3コーナ仕様 3 cutting edges	TPGW 090202 PT SCD	S01015	5.56	2.38	0.2	3	2.2					●		●		
	090202 PT SXF	S01325			0.2		2.2					●		●		
	090202 PT SEH	S01535			0.2		2.2					●		●		
	090204 PT SCD	S01015			0.4		2.0					●		●		
	090204 PT SXF	S01325			0.4		2.0					●		●		
	090204 PT SEH	S01535			0.4		2.0					●		●		
	090208 PT SCD	S01015			0.8		1.7					●		●		
	090208 PT SXF	S01325			0.8		1.7					●		●		
	090208 PT SEH	S01535			0.8		1.7					●		●		
	090312 PT SCD	S01015	1.2	2.3					●		●					
	090312 PT SXF	S01325	1.2	2.3					●		●					
	090312 PT SEH	S01535	1.2	2.3					●		●					
	TPGW 110302 PT TCE	T01020	T01020	6.35	3.18	0.2	3	2.2			●		●	●	●	
	110302 PT SCD	S01015	0.2			2.2						●		●		
	110302 PT SXF	S01325	0.2			2.2						●		●		
	110302 PT SEH	S01535	0.2			2.2						●		●		
	110304 PT TCE	T01020	0.4			2.0						●	●			
	110304 PT TED	T01515	0.4			2.0						●	●			
	110304 PT SCD	S01015	0.4			2.0						●	●			
	110304 PT SXF	S01325	0.4			2.0						●	●			
	110304 PT SEH	S01535	0.4			2.0						●	●			
	110308 PT TCE	T01020	0.8	1.7					●		●	●	●			
	110308 PT TED	T01515	0.8	1.7					●		●	●	●			
	110308 PT SCD	S01015	0.8	1.7					●		●	●	●			
110308 PT SXF	S01325	0.8	1.7					●		●	●	●				
110308 PT SEH	S01535	0.8	1.7					●		●	●	●				
110312 PT TCE	T01020	1.2	2.3					●		●						
110312 PT TED	T01515	1.2	2.3					●		●						
110312 PT SCD	S01015	1.2	2.3					●		●						
110312 PT SXF	S01325	1.2	2.3					●		●						
110312 PT SEH	S01535	1.2	2.3					●		●						


● : 標準在庫品 Stock

刃先強度 Edge Strongness

品番 : ZCD (刃先仕様 : Z01015) Part number : ZCD (Edge specification : Z01015)	品番 : SCD (刃先仕様 : S01015) Part number : SCD (Edge specification : S01015)	品番 : SXF (刃先仕様 : S01325) Part number : SXF (Edge specification : S01325)	品番 : SEH (刃先仕様 : S01535) Part number : SEH (Edge specification : S01535)
			


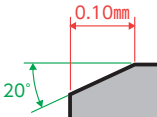
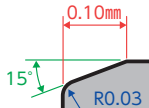
品番表 Description table

標準在庫品 / Stock list




ポジティブ Positive								PVDコーテッド CBN PVD Coated CBN		ノンコート CBN Non-coated CBN									
形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	B5K	B6K	B23	B30	B36	B40	B52					
 2コーナ仕様 2 cutting edges	VBGW 110302 PD F	シャープエッジ Sharpedge	6.35	3.18	0.2	2	2.6				●			●					
	110302 PD SCD	S01015																	
	110302 PD SXF	S01325														●		●	
	110302 PD SEH	S01535														●		●	
	110304 PD F	シャープエッジ Sharpedge														●			●
	110304 PD TCE	T01020														●			●
	110304 PD SCD	S01015												●		●			
	110304 PD SXF	S01325												●		●			
	110304 PD SEH	S01535												●		●			
	110308 PD TCE	T01020												●			●		
	110308 PD SCD	S01015													●		●		
	110308 PD SXF	S01325													●		●		
	110308 PD SEH	S01535											●		●				
	110312 PD TCE	T01020											●		●				
	110312 PD SCD	S01015												●	●				
	110312 PD SXF	S01325												●	●				
	110312 PD SEH	S01535												●	●				
	160402 PD SCD	S01015		9.525	4.76	0.2	2	2.6							●				
	160402 PD SXF	S01325																	●
	160402 PD SEH	S01535																	●
	160404 PD SCD	S01015																	●
	160404 PD SXF	S01325																	●
	160404 PD SEH	S01535																	●
	160408 PD SCD	S01015														●			
	160408 PD SXF	S01325														●			
	160408 PD SEH	S01535														●			
	160412 PD SCD	S01015														●			
	160412 PD SXF	S01325														●			
	160412 PD SEH	S01535														●			
	080202 PD SCD	S01015		4.76	2.38	0.2	2	2.6							●				
	080202 PD SXF	S01325																	●
	080204 PD SCD	S01015																●	
	080204 PD SXF	S01325																●	
	080208 PD SCD	S01015												●					
	080208 PD SXF	S01325												●					
	110302 PD SCD	S01015		6.35	3.18	0.2	2	2.6							●				
	110302 PD SEH	S01535																	●
	110304 PD SCD	S01015																	●
	110304 PD SEH	S01535																	●
	110308 PD SCD	S01015																●	
110308 PD SEH	S01535																●		
110312 PD SCD	S01015																●		
110312 PD SEH	S01535																●		
160402 PD SCD	S01015		9.525	4.76	0.2	2	2.6							●					
160402 PD SEH	S01535																	●	
160404 PD TCE	T01020																	●	
160404 PD SCD	S01015																	●	
160404 PD SEH	S01535																	●	
160408 PD TCE	T01020																●		
160408 PD SCD	S01015																●		
160408 PD SEH	S01535																●		
160412 PD TCE	T01020																●		
160412 PD SCD	S01015																●		
160412 PD SEH	S01535												●						

● 刃先処理 / Edge Preparation

切れ味 Sharpness

品番 : F (刃先仕様 : シャープエッジ) Part number : F (Edge specification : Sharp edge)	品番 : TCE (刃先仕様 : T01020) Part number : TCE (Edge specification : T01020)	品番 : SCD (刃先仕様 : S01015) Part number : SCD (Edge specification : S01015)
		

ポジティブ Positive

形状 Shape	品番 Part number	刃先仕様 Edge prep.	内接円 I.C.	厚さ Thickness (T)	コーナ R Corner R	コーナ数 No. of edge	切刃長さ Length of edge	PVD コーテッド CBN PVD Coated CBN		ノンコートCBN Non-coated CBN									
								B5K	B6K	B23	B30	B36	B40	B52					
 4コーナ仕様 4 cutting edges	SPGN 090304 PQ TCE	T01020	9.525	3.18	0.4	4	2.3				●			●	●				
	090304 PQ SCD	S01015																	
	090304 PQ SCE	S01020																	
	090304 PQ SEH	S01535																	
	090308 PQ TCE	T01020						0.8	2.3					●			●	●	
	090308 PQ SCD	S01015																	
	090308 PQ SCE	S01020																	
	090308 PQ SEH	S01535																	
	090312 PQ TCE	T01020						1.2	2.8						●			●	●
	090312 PQ SCD	S01015																	
090312 PQ SCE	S01020																		
090312 PQ SEH	S01535																		
 上面張りCBN 3 cutting edges	TBGN 060102 S SNCD	S01015	3.97	1.59	0.2	3	6.5								●				
	060104 S SNCD	S01015			0.4		6.3										●		
	060108 S SNCD	S01015			0.8		5.7										●		
 3コーナ仕様 3 cutting edges	TPGN 110302 PT SCD	S01015	6.35	3.18	0.2	3	2.2								●				
	110302 PT SCE	S01020																	
	110302 PT SXF	S01325																	
	110302 PT SEH	S01535																	
	110304 PT TCE	T01020						0.4	2.0					●			●	●	
	110304 PT SCD	S01015																	
	110304 PT SCE	S01020																	
	110304 PT SXF	S01325																	
	110304 PT SEH	S01535																	
	110308 PT TCE	T01020						0.8	1.7					●			●	●	
	110308 PT SCD	S01015																	
	110308 PT SCE	S01020																	
	110308 PT SXF	S01325																	
	110308 PT SEH	S01535																	
	110312 PT TCE	T01020			1.2	2.3						●			●	●			
	110312 PT SCD	S01015																	
	110312 PT SCE	S01020																	
	110312 PT SXF	S01325																	
	110312 PT SEH	S01535																	
	160302 PT SCD	S01015		9.525	3.18	0.2	3	2.2								●			
	160302 PT SXF	S01325																	
	160302 PT SEH	S01535																	
	160304 PT TCE	T01020								0.4	2.0						●		●
	160304 PT SCD	S01015																	
160304 PT SCE	S01020																		
160304 PT SXF	S01325																		
160304 PT SEH	S01535																		
TPGN 160308 PT TCE	T01020					0.8		1.7						●			●	●	
160308 PT SCD	S01015																		
160308 PT SCE	S01020																		
160308 PT SXF	S01325																		
160308 PT SEH	S01535																		
160312 PT TCE	T01020			1.2	2.3							●		●	●				
160312 PT SCD	S01015																		
160312 PT SCE	S01020																		
160312 PT SXF	S01325																		
160312 PT SEH	S01535																		

● : 標準在庫品 Stock

刃先強度 Edge Strongness

品番 : SCE (刃先仕様 : S01020) Part number : SCE (Edge specification : S01020)	品番 : SXF (刃先仕様 : S01325) Part number : SXF (Edge specification : S01325)	品番 : SEH (刃先仕様 : S01535) Part number : SEH (Edge specification : S01535)
