

PCBN SBN K-TIP™

cBN Sintered Compacts



SHOWA DENKO K.K.

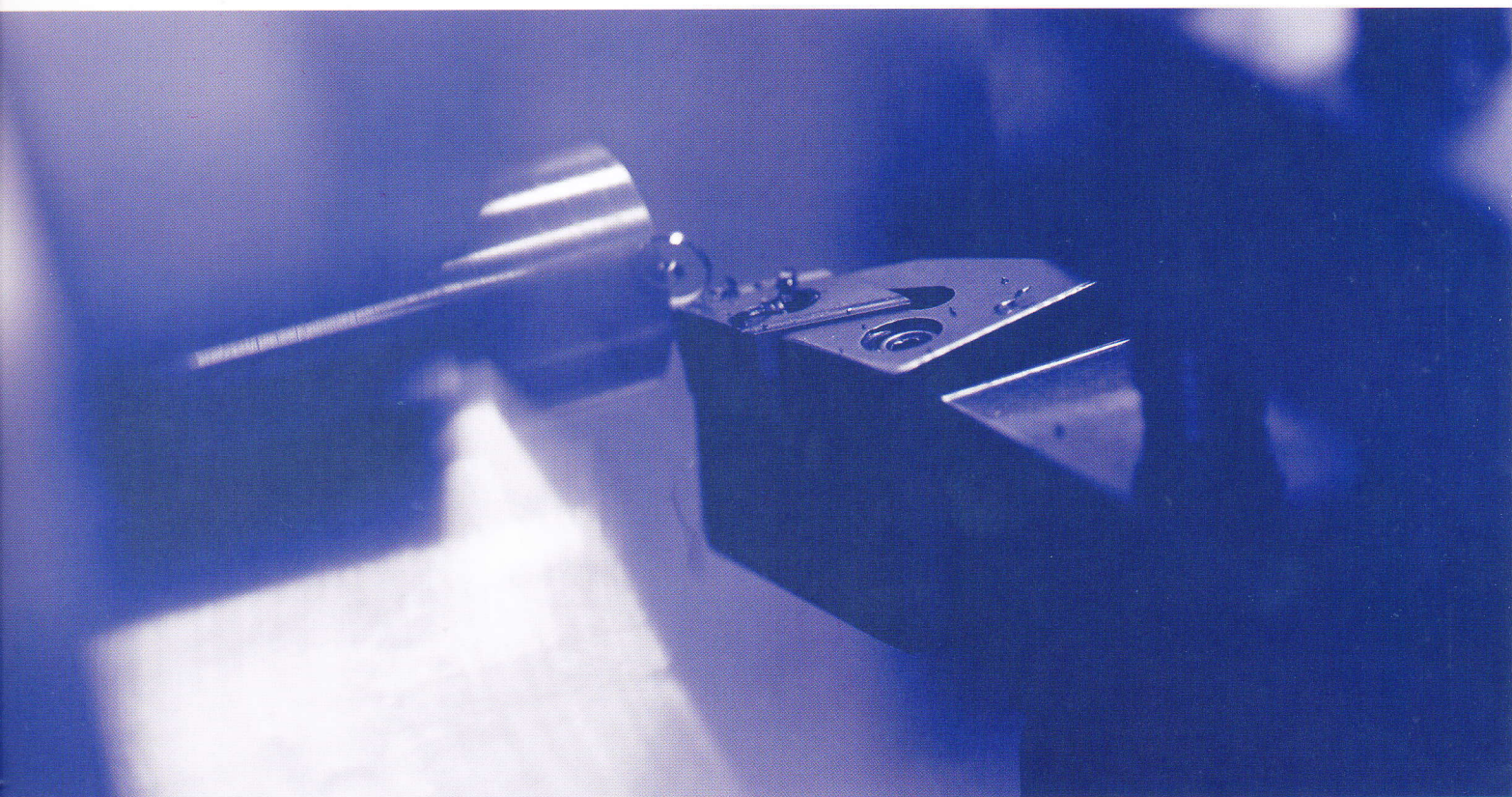
PCBN

SBN K-TIP™

cBN Sintered Compacts

SBN K-TIP is morphologically featured in that cBN grains constitute the skeleton with special binders filling voids and creating coherent bonds.

Use of SBN K-TIP is recommended for the purpose of cutting hard ferrous alloys and difficult to work materials and for a raw material of wear resistant part.



Grades, Standard products, Applications

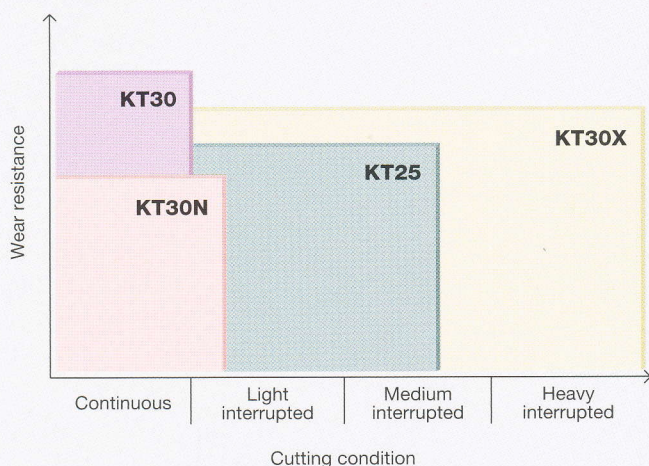
	Grade	cBN (vol%)	cBN size (μm)	Major Binder	Vickers hardness (GPa)	Transverse rupture strength (MPa)	Ø 29	Ø 60	CUT	Application
Carbide Backed KT Series	KT10	80	3	TiN	32	1000	○	○	○	• High-speed steel and cast iron
	KT10C	80	3	TiC	32	1000	○	—	○	• Powdered metal
	KT20C	70	3	TiC	30	950	○	○	○	• Powdered metal and cast iron
	KT25	65	2	TiCN	29	950	○	○	○	• General-purpose grade for hardened steel and cast iron, having wear resistance and toughness
	KT30	60	3	TiC	29	850	○	○	○	• Finishing hardened steel and cast iron
	KT30N	60	3	TiN	28	850	○	○	○	• Finishing hardened steel
	KT30X	65	1	TiN	28	1300	○	○	○	• Interrupted cutting of hardened steel
Solid KS Series	KS10	80	3	TiN	32	1000	○	○	○	• High-speed steel and cast iron
	KS25	65	2	TiCN	29	950	○	○	○	• General-purpose grade for hardened steel and cast iron, having wear resistance and toughness
	KS30X	65	1	TiN	28	1300	○	○	○	• Interrupted cutting of hardened steel

1. Supported by a layer of cemented carbide, Standard thickness(3.2, 2.5, 1.6mm), PCBN(0.7~1.0mm)

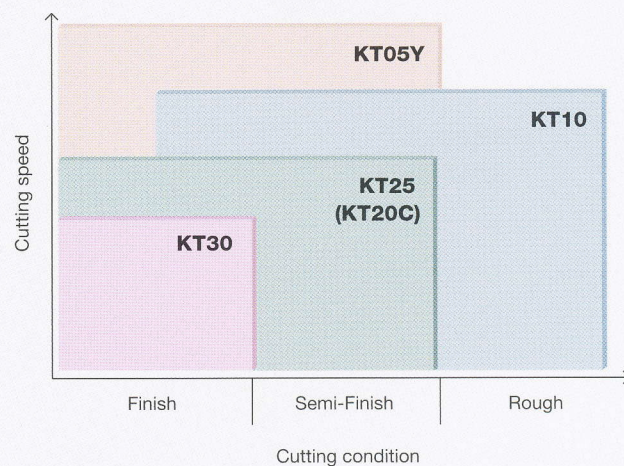
2. A composite consisting of solely sintered cBN, Standard thickness(3.2, 2.5, 1.6mm)

3. The above are representative values not guaranteed ones.

SBN K-TIP : Application for hardened steel



SBN K-Tip : Application for cast iron



● Dimensions and shapes of SBN K-TIP

Round

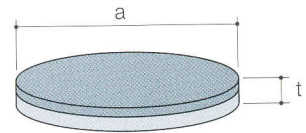
Rn1(n2)a1a2a3t1t2

n : divide number a : diameter t : thickness

R1 : circle(round360°) **R2** : semicircle(round180°)

R3 : round120° **R4** : round90°

- example : round 360° diameter Ø60.0mm thickness 3.2mm ⇒ **R160032**

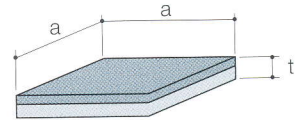


Square

SQ a1a2a3t1t2

a : length t : thickness

- example : length 13.0mm thickness 3.2mm ⇒ **SQ13032**

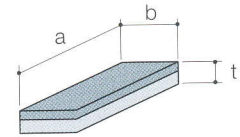


Rectangle

La1a2a3(b1)b2b3t1t2

a : long length b : short length t : thickness

- example : long length 13mm short length 8.5mm thickness 2.5mm
⇒ **L13008525** or **L1308525**

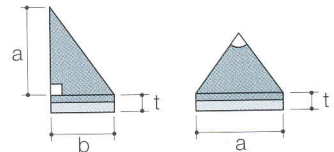


Triangle

Tθ1θ2a1a2a3(b1b2b3)t1t2

θ : representation angle b : case of right angle triangle t : thickness

- example : θ 60° a = 5.0mm thickness 2.5mm ⇒ **T6005025**



thickness : under 4.8mm

- When you need other shapes, please inquire.
- When you order, please specify the details as, for example, "50 pieces of KT30X R160032 and 10 pieces of KS10 SQ10032".

The above are representative values not guaranteed ones.

● Special products

	Diameter	PCBN (mm)	Thickness (mm)	Grade
G type* (KT Series)	Ø 60	1.0 ~ 3.0 t	5 ~ 13 t	KT30X
	Ø 29	1.0 ~ 2.0 t	5 ~ 13 t	KT30X
Special solid* (KS Series)	Ø 60	1.0 ~ 24 t	—	KS10 KS25
	Ø 29	0.5 ~ 12 t	—	KS10 KS25 KS30X

* The above are Nonstandard. Ask for details.

The above are representative values not guaranteed ones.

