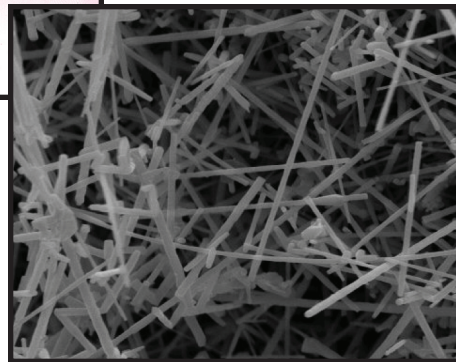


WIDIA

Widia's NEW Whisker Ceramic Grade CW3020



CW3020 is composed of aluminum oxide reinforced with silicon carbide whiskers (SiCw). SiCw are monocrystals with high mechanical strength. They improve strength and the fracture toughness of the brittle ceramic by acting like the steel grid in reinforced concrete.

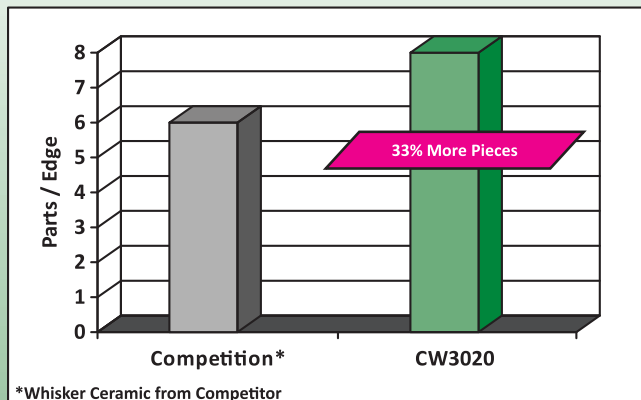
CW3020 is mainly used in the Aerospace industry for high-temperature alloys such as Inconel, Stellite, Waspaloy, Hastelloy etc. It is also proven to be a good grade for chilled rolls with casting crust, heavily worn rolling surfaces and alloyed brake disks of gray cast iron.

Key Features:

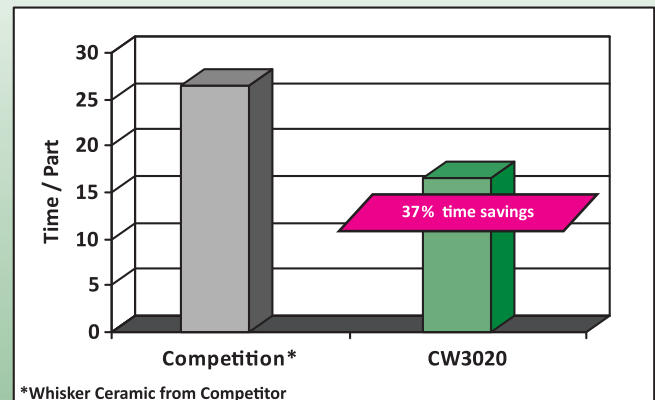
- Increase speed by 10 - 20% compared to competition
- Excellent wear resistance
- Cut with lower forces and higher speed for an excellent surface finish

Application Examples:

Liner Sleeve: 41.2 Cast (62-64RC)

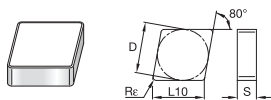


Inconel 718 (2.4668)



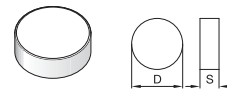
WIDIA Whisker Ceramic Inserts

CNG



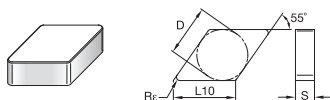
Designation	D	L10	S	Rε	D1	CW3020
CNG-432T0420	.500	.508	.187	.031	--	●
CNG-433T0420	.500	.508	.187	.047	--	●
CNG-434T0420	.500	.508	.187	.063	--	●
CNG-453T0420	.500	.508	.313	.047	--	●
CNG-454T0420	.500	.508	.313	.063	--	●

RNG



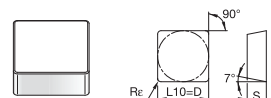
Designation	D	L10	S	Rε	D1	CW3020
RNG-32T0420	.375	--	.125	--	--	●
RNG-43T0420	.500	--	.187	--	--	●
RNG-45T0420	.500	--	.313	--	--	●
RNG-45T6015	.500	--	.313	--	--	●

DNG



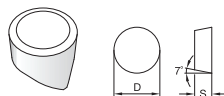
Designation	D	L10	S	Rε	D1	CW3020
DNG-452T0420	.500	.610	.313	.031	--	●
DNG-453T0420	.500	.610	.313	.047	--	●
DNG-454T0420	.500	.610	.313	.063	--	●

SNG



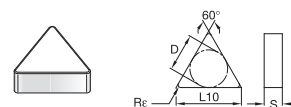
Designation	D	L10	S	Rε	D1	CW3020
SNG-433T0420	.500	.500	.187	.047	--	●
SNG-434T0420	.500	.500	.187	.063	--	●
SNG-453T0420	.500	.500	.313	.047	--	●
SNG-454T0420	.500	.500	.313	.063	--	●

RCGV



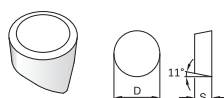
Designation	D	L10	S	Rε	D1	CW3020
RCGV-23T0420	.250	--	.187	--	--	●
RCGV-35T0420	.375	--	.312	--	--	●
RCGV-45T0420	.500	--	.312	--	--	●

TNG



Designation	D	L10	S	Rε	D1	CW3020
TNG-332T0420	.375	.650	.187	.031	--	●
TNG-333T0420	.375	.650	.187	.047	--	●

RPGV



Designation	D	L10	S	Rε	D1	CW3020
RPGV-23T0420	.250	--	.187	--	--	●
RPGV-35T0420	.375	--	.312	--	--	●
RPGV-45T0420	.500	--	.312	--	--	●

DIN ISO 513	Recommended Cutting Speed Starting Conditions		Hardness HB	Mat. Gr.	doc x feed = .0394" x .0039"		
					Cutting Speed vc in sfm		
					.0079 - .16 / .0020 - .01	min	max
Work Material		Condition			CW3020		
S	High Temp	G	200	31	550	650	1200
	Alloy FE	AG	280	32	550	650	1200
	High Temp	G	250	33	550	720	1200
	Alloy	AG	350	34	550	720	1200
	Ni / Co	GO	320	35	630	820	1225

TYSON TOOL

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