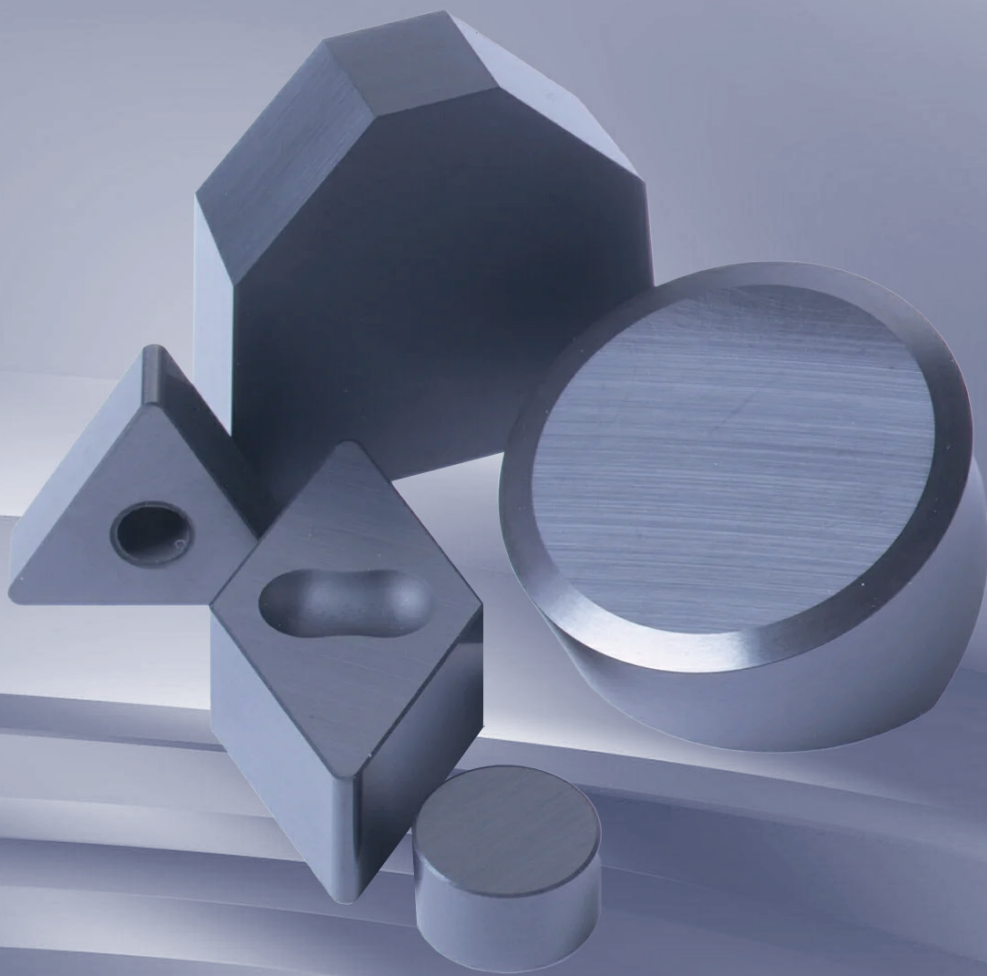


A graphic element consisting of two parallel diagonal lines, one orange and one blue, extending from the top left towards the center, positioned behind the title text.

CERAMIC INSERTS

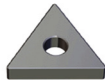
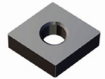
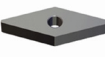
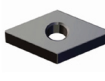
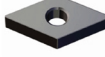
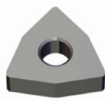
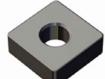
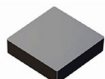


Ceramic Grade

PHYSICAL PROPERTIES					
	COMPOSITION	COLOUR	DENSITY (GM/CM3)	HARDNESS (Hv)	TOUGHNESS (MPa-m1/2)
UN200	Al ₂ O ₃ + TiC 00	Black	4.2	2100	4.5
UN300	Al ₂ O ₃ + TiCN0	Black	4.3	2000	4
UN200C	(TiN)	GOLD	4.4	2150	4
UN300	Si ₃ N ₄	GREY	3.2	1650	6.5

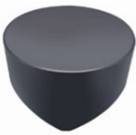
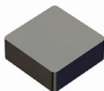
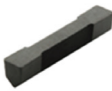
Application	Grade	Workpiece		Machining Type	Speed (V) (m/min)	Feed (f) (mm/rev)	Depth (DOC) (mm)
Turning	UK200 UK300 UK200C	Gray Cast Iron	Gray Cast Iron (FC) Malleable (FCMB)	Rough Finish	150 ~ 800 200 ~ 1,200	0.2 ~ 0.5 0.3 ~ 0.5	3 ~ 6 0.1 ~ 0.5
			Chilled Cast Iron	Rough Finish	30 ~ 100 50 ~ 200	0.1 ~ 0.2 0.05 ~ 0.15	0.5 ~ 1.5 0.1 ~ 0.5
		Steel	Carbon Steel Alloy Steel Bearing Steel	Rough Finish	150 ~ 400 200 ~ 800	0.2 ~ 0.5 0.05 ~ 0.2	2 ~ 5 0.1 ~ 0.5
			Hard Steel (HRC 45≥)	Rough Finish	20 ~ 100 40 ~ 200	0.1 ~ 0.2 0.05 ~ 0.5	0.5 ~ 1.5 0.1 ~ 0.5
	UN300	Gray Cast Iron	Gray Cast Iron (FC) Malleable (FCMB)	Rough Finish	150 ~ 1,100 250 ~ 1,200	0.3 ~ 0.8 0.15 ~ 0.4	< 5 < 1
			Chilled Cast Iron	Rough Finish	20 ~ 100 60 ~ 200	1.0 ~ 2.0 0.5 ~ 1.0	< 5 < 1
	NEW UN400	Ni-Based Alloy Non-Ferrous Metal Inconel		Rough Finish	150 ~ 250 150 ~ 450	0.2 ~ 0.4 0.1 ~ 0.2	< 5 < 1
	UN300	High temperature alloys Inconel Stellite		Rough Finish	180 ~ 360 180 ~ 450	0.1 ~ 0.25 0.1 ~ 0.30	1 ~ 3 0.5 ~ 2.0
Milling	UK300	Gray Cast Iron (FC)		Rough Finish	100 ~ 1,200 150 ~ 1,500	0.3 ~ 0.5 0.3 ~ 0.7	< 5 < 3
		Ductile Cast Iron Alloy Steel		Rough Finish	90 ~ 500 100 ~ 700	0.1 ~ 0.3 0.1 ~ 0.4	< 5 < 3
		High temperature alloys Inconel Stellite		Finish	700 ~ 1,000	0.05 ~ 0.15 / tooth	0.5 ~ 2.5
	UN300	High temperature alloys Inconel		Rough	150 ~ 400	0.05 ~ 0.1 / tooth	1 ~ 3

CERAMIC

INSERTS	DESIGNATION	UNCOATED		COATED	NON COATED
		UK200	UK300	UK200C	UN300
	TNGA160404 E040	•	•	•	
	TNGA160408 E040	•	•	•	
	TNGA160412 E040	•	•	•	
	CNGA120404 E040	•	•	•	
	CNGA120408 E040	•	•	•	
	CNGA 120412 E040	•	•	•	
	VNGA160404 E040	•	•	•	
	VNGA160408 E040	•	•	•	
	VNGA160412 E040	•	•	•	
	DNGA150404 E040	•			
	DNGA150408 E040	•	•		
	DNGA150412 E040	•			
	DNGA150604 E040	•		•	
	DNGA150608 E040	•	•	•	
	DNGA150612 E040	•			
	WNGA080404 E040	•			
	WNGA080408 E040	•	•		
	WNGA080412 E040	•			
	SNGA120408 E040	•	•	•	
	SNGA120412 E040	•	•	•	
 	CNGN 120712 E040	•			
	CNGN120716 E040	•			
	RNGN120400E040	•			
	RNGN090300	•			
	RNGN150700E040	•			
	RNGN250700X652	•			

WN

NEGATIVE

INSERTS	DESIGNATION	UNCOATED		COATED	NON COATED
		UK200	UK300	UK200C	UN300
	RCGX060600E040	•			
	RCGX090700E040	•			
	RCGX120700E040	•			
	RCGX151000E040	•			
	RCGX251200X542	•			
  	SNGN120408 E040	•			•
	SNGN120412 E040	•			•
	ONEN080608 E040	•			•
	HNEN090520 E040	•			•
	UGBF 3.18-0.4	•			•
	UGBF 4.78-0.4	•			•
	UGBF 5.54-0.4	•			•
	UGBF 6.35-0.4	•			•