TURNING INSERTS · POSITIVE INSERTS · TCMT - 60° TRIANGULAR

TCGT-AK

Ground 60° positive triangular insert (TCGT) for turning aluminium, with AK chipbreaker and INNOT uncoated carbide grades.

KEY DATA	
Product type	Turning Inserts
ISO materials	**N** aluminium
Operation	Finishing
Chipbreaker	**AK**
INNOT grades	**ITK10** ★ · ITK20 ★ recommended
Nose radii	R0.4
Online page	innot-it.com/en/prodotto/tcgt-ak

ISO specifications

ISO	RADIUS (RE)	AVAILABLE GRADES	CHIPBREAKER
TCGT0902	0.4	ITK10 - ITK20	AK
TCGT1102	0.4	ITK10 - ITK20	AK
TCGT16T3	0.4	ITK10 - ITK20	AK

AK chipbreaker data sheet

Operation	Finishing
ISO material	N (aluminium alloys and non-ferrous metals)
Tolerance	G (ground insert)
Features	Chipbreaker for machining aluminium alloys. The large top and bottom rake angle makes the cutting edge sharper: cutting is faster and lighter, with effective chip breaking. Tolerance G (ground insert) for greater accuracy. 7° positive insert (shape T, 60° triangular) with screw clamping: 3 cutting edges, for external turning and boring with STFC (90°) type toolholders.

Available INNOT grades

Grade	ISO	Coating	Composition	Application
ITK10 ★	**N**	**Uncoated**	Fine-grain carbide	First-choice grade for turning aluminium alloys. Uncoated carbide with a fine, uniform grain matrix: high transverse rupture strength and good wear resistance.
ITK20	**N**	**Uncoated**	Carbide	Universal grade for turning aluminium alloys. Uncoated carbide with excellent wear resistance, better chipping resistance, great versatility and reliability.

★ Recommended grade for this chipbreaker. Uncoated carbide, with a sharp cutting edge for gummy materials. ISO N = aluminium and non-ferrous metals.

Recommended cutting data

External turning of aluminium (ISO N) – AK chipbreaker

Material	Condition	Vc (m/min) by grade	fn (mm/rev)	ap (mm)
Aluminium alloys and non-ferrous metals	Stable	ITK10: 300 – 700 ITK20: 300 – 700	0.10 – 0.30	0.50 – 3.00
Aluminium alloys and non-ferrous metals	Average	ITK10: 300 – 700 ITK20: 300 – 700	0.10 – 0.25	0.50 – 3.00
Aluminium alloys and non-ferrous metals	Difficult	ITK10: 300 – 700 ITK20: 300 – 700	0.10 – 0.20	0.50 – 3.00

Guide values for the AK chipbreaker (positive inserts), given only for the grades available in this product.

Internal turning / boring (ISO N)

Material	Operation	Cut	RE	Vc (m/min) min – recomm. – max	ap (mm) min – recomm. – max	fn (mm/rev) min – recomm. – max
Copper, copper alloys, aluminium (Si < 10%) ≤ 100 HB	High-speed finishing (bright surface)	Continuous	0.4 – 0.8	200 – 400 – 1000	0.05 – 0.1 – 0.3	0.05 – 0.1 – 0.15
	Finishing	Continuous	0.4 – 0.8	100 – 200 – 400	0.05 – 0.5 – 1.0	0.03 – 0.1 – 0.2
		Interrupted		100 – 200 – 400	0.05 – 0.5 – 1.0	0.03 – 0.1 – 0.2

Recommended grades: ITK10 – ITK20. Guide values for positive inserts, machining diameter over Ø10 mm. ap = radial depth of cut.

INNOT · CUTTING TOOLS FOR CNC MACHINE SHOPS
Quote within 30 minutes
Send us the code or the drawing: we reply with price and availability. Free test inserts on request, 24/48h shipping.
+39 375 786 1361 · info@innot-it.com · www.innot-it.com

Scan to open the online page

Cutting data are indicative starting values: adjust them to machine, clamping, tool overhang and workpiece material. Data and images may change without notice.