

Garant**GARANT Diabolo solid carbide torus cutter RS1 0.1, TiAlN, Ø DC×L4: 0,7X4mm****Order data**

Order number	206142 0,7X4
GTIN	4045197359636
Item class	11X

Description**Version:****GARANT Diabolo:**

Special geometry, coating and carbide for **hard machining in the high-performance field.**

Suitable even for **machining electrolytic copper.** Double-relief ground with 2 chamfers hollow ground for high-precision hard machining.

- **Recess angle $\alpha = 16^\circ$.**

Tolerances:

- **Corner radius: $RS_1 = \pm 0.01$ mm.**
- **Recess $\varnothing$: $D_4 = 0 / -0.02$ mm.**

Note:

Correction factor for v_c depends on dimension L_4 .

f_z for $a_p = 0.1 \times D$.

Technical description

Corner radius R_1	0.1 mm
Recess $\varnothing D_1$	0.68 mm
No. of teeth Z	2
Feed f_z for copy milling in steel < 65 HRC	0.0068 mm
Feed f_z for side milling in steel < 65 HRC	0.0051 mm
Cutting edge $\varnothing D_c$	0.7 mm
Overhang length L_1 incl. recess	4 mm
Cutting speed v_c in steel < 65 HRC	52 m/min

Data sheet

Shank $\varnothing D_s$	4 mm
Flute length L_c	0.7 mm
Overall length L	50 mm
Correction factor for v_c	1.25
Shank	DIN 6535 HA to h5
Helix angle	30 degrees
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal $\varnothing$	0 / -0.012
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.05×D for copy milling
Cutting width a_e for milling operation	0.1×D for side milling
Shank tolerance	h5
Colour ring	red
Type of product	Torus cutter

User data

	Suitability	V_c	ISO code
Steel < 750 N/mm ²	suitable only under restricted conditions	220 m/min	P
Steel < 900 N/mm ²	suitable only under restricted conditions	220 m/min	P
Steel < 1100 N/mm ²	suitable	210 m/min	P
Steel < 1400 N/mm ²	suitable	190 m/min	P
Steel < 50 HRC	suitable	180 m/min	H
Steel < 55 HRC	suitable	120 m/min	H

Data sheet

Steel < 60 HRC	suitable	72 m/min	H
Steel < 65 HRC	suitable	55 m/min	H
INOX < 900 N/mm ²	suitable only under restricted conditions	95 m/min	M
INOX > 900 N/mm ²	suitable only under restricted conditions	75 m/min	M
CuZn	suitable	140 m/min	N
Uni	suitable only under restricted conditions		
wet maximum	suitable only under restricted conditions		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		