Garant

Solid carbide torus cutter R1 0.1, Diamond, ⌀ DC × L1: 1X4mm

Order data

Order number	209716 1X4
GTIN	4045197918208
Item class	10Y

Description

Version:
With **crystalline diamond sp^3 coating**. For the **highest demands regarding performance and precision** in fibre-reinforced composites, CRP, GRP, and graphite. **Extremely tight tolerances** ensure maximum accuracy. Double relief ground with 2 hollow-ground chamfers. **Recess angle α = 16°.**
Tolerances:
· **Corner radius: R_1 = ±0.0025 mm**
· **Neck ⌀: D_1 = 0 / -0.01 mm**
Note:
At greater tool overhang lengths, use a reduced value for a_p!
Values for:
copying: $a_p = 0.10 \times D \times a_{p\,korr}$
side milling: $a_p = 0.20 \times D \times a_{p\,korr}$
To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)!
e.g: vf = 18000 [rpm]× fz [mm/Z]× z

Technical description

Shank	DIN 6535 HA to h5
Feed f_z for copy milling in graphite	0.03 mm
Recess ⌀ D_1	0.95 mm
Shank ⌀ D_s	4 mm
Corner radius R_1	0.1 mm
Flute length L_c	1 mm

No. of teeth Z	2
Cutting edge ⌀ D_C	1 mm
Feed f_z for side milling in graphite	0.03 mm
Overhang length L_1 incl. recess	4 mm
Overall length L	50 mm
Helix angle	30 degrees
Correction factor $a_{p\,corr}$	1
Coating	Diamond
Tool material	Solid carbide
Standard	Manufacturer's standard
Tolerance nominal ⌀	0 / –0.005
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	0.5×D for side milling
Through-coolant	no
Colour ring	black
Type of product	Torus cutter

User data

	Suitability	V_c	ISO code
PVDF GF20	suitable	200 m/min	N
POM GF25	suitable	190 m/min	N
PA 66 GF30	suitable	170 m/min	N
PEEK GF30	suitable	150 m/min	N
PTFE CF25	suitable	180 m/min	N
PEEK CF30	suitable	160 m/min	N
Hybrids	suitable		
Honeycomb sandwich	suitable	350 m/min	N
GRP	suitable	190 m/min	N

GRP, CRP	suitable	190 m/min	N
Graphite	suitable	340 m/min	N
wet minimum	suitable		
dry	suitable		
Air	suitable		