

Garant**Solid carbide torus cutter RS1 0.1, Diamond, Ø DC×L4: 1X10mm****Order data**

Order number	209715 1X10
GTIN	4045197474186
Item class	11Y

Description**Version:**

With the latest generation of **crystalline diamond coating sp³**, for process reliability in machining **fibre-reinforced composites, CRP, GRP, and graphite.**

Solid carbide micro torus cutter with corner radii.

Double-relief ground with 2 chamfers. High precision version in respect of concentricity and all tolerances.

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

Tolerances:

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

Note:

Correction factor for v_c depends on dimension L_4 .

f_z for $a_p = 0.1 \times D$.

Technical description

Feed f_z for side milling in graphite	0.0071 mm
Corner radius R_1	0.1 mm
Feed f_z for copy milling in graphite	0.01 mm
Recess Ø D_1	0.95 mm
Cutting edge Ø D_c	1 mm
Cutting speed v_c in graphite	235 m/min
No. of teeth Z	2
Overhang length L_1 incl. recess	10 mm

Data sheet

Shank $\varnothing D_s$	4 mm
Flute length L_c	1 mm
Overall length L	50 mm
Correction factor for v_c	1.25
Shank	DIN 6535 HA to h5
Helix angle	30 degrees
Coating	Diamond
Tool material	Solid carbide
Standard	Manufacturer's standard
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	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, CRP	suitable	190 m/min	N
Graphite	suitable	340 m/min	N

Data sheet

wet maximum	suitable
wet minimum	suitable
dry	suitable only under restricted conditions
Air	suitable