

**Garant**
**Solid carbide torus cutter TPC, DLC, Ø h6 DC / R1: 12/1,0mm**

**Order data**

Order number	206211 12/1,0
GTIN	4045197812100
Item class	11X

**Description**
**Version:**

**Eccentric relief ground**, additionally **polish ground** in the flutes for **outstanding chip evacuation** in long-chipping aluminium workpieces.

With double chip-breaker for exemplary chip formation.

With the latest generation of **DLC coating sp<sup>2</sup>**.

**Application:**

Especially for **MTC (Multi Task Cutting)** use on the new generation of turning / milling centres.

**Note:**

$a_{e\max} = 0.12 \times D$  for TPC machining.

$h_{\max}$ : The values stated in the table are maximum values.

**Technical description**

Corner radius $R_1$	1 mm
Recess $\varnothing D_1$	11 mm
Overhang length $L_1$ incl. recess	60 mm
Overall length $L$	109 mm
Cutting edge $\varnothing D_c$	12 mm
Shank form	HA
Shank $\varnothing D_s$	12 mm
No. of teeth $Z$	3
Flute length $L_c$	49 mm

Average chip thickness $h_{\max}$ for TPC milling in short-chipping aluminium	0.08 mm
Balance quality with shank	G 2.5 with HA
Shank	DIN 6535 HA to h6
Helix angle	45 degrees
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Tolerance nominal $\varnothing$	h6
Helix angle characteristic	unequal spacing
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	0.12×D
Through-coolant	no
Machining strategy	TPC
Colour ring	yellow
Type of product	Torus cutter

## User data

	Suitability	$V_c$	ISO code
Aluminium	Suitable	280 m/min	N
Aluminium (short chipping)	suitable	270 m/min	N
Alu > 10% Si	suitable	180 m/min	N
PMMA acrylic	suitable	125 m/min	N
PE-HD	Suitable	110 m/min	N
PA 66	Suitable	140 m/min	N
PEEK	suitable	90 m/min	N
PF 31	Suitable	80 m/min	N

PVDF GF20	suitable	125 m/min	N
POM GF25	Suitable	115 m/min	N
PA 66 GF30	suitable	105 m/min	N
PEEK GF30	suitable	90 m/min	N
PTFE CF25	suitable	110 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	120 m/min	N
Cu	Suitable	70 m/min	N
CuZn	Suitable	90 m/min	N
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		
<del>Air</del>	<del>Suitable</del>		
<b>Services</b>			

Shank grinding Type HB

129100 HB