

**Garant**
**Solid carbide milling cutter TPC, DLC, Ø h6 DC: 12mm**

**Order data**

Order number	202284 12
GTIN	4045197977311
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>**.

**Note:**

**NEW GENERATION AVAILABLE! Recommended successor product is No. 203115.**

$a_{e \max} = 0.1 \times D$  for TPC machining.

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

**Technical description**

Shank Ø $D_s$	12 mm
Recess Ø $D_1$	11 mm
Balance quality with shank	G 2.5 with HA
Cutting edge Ø $D_c$	12 mm
Tolerance nominal Ø	h6
Average chip thickness $h_{\max}$ for TPC milling in short-chipping aluminium	0.063 mm
Overhang length $L_1$ incl. recess	72 mm
Shank	DIN 6535 HA to h6
Shank form	HA
Overall length $L$	121 mm

No. of teeth Z	3
Corner chamfer width at 45°	0.2 mm
Flute length L <sub>c</sub>	61 mm
Helix angle	45 degrees
Direction of infeed	horizontal, oblique and vertical
Corner chamfer angle	45 degrees
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Helix angle characteristic	unequal spacing
Cutting width a <sub>e</sub> for milling operation	0.1×D
Through-coolant	no
Machining strategy	TPC
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	V <sub>c</sub>	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	80 m/min	N
CuZn	Suitable	100 m/min	N
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		
Air	suitable only under restricted conditions		

## Services

Shank grinding Type HB

129100 HB