

## Garant

### Solid carbide milling cutter with more chip separators TPC, TiAlN, Ø f8 DC: 12 mm



#### Order data

Order number	203092 12
GTIN	4045197953872
Item class	11X

#### Description

##### Version:

**High-performance milling cutter** specially designed for general-purpose TPC applications. Strengthened core.

**Optimised bending strength** due to the use of ultra-fine grain substrates.

**Chip separator for controlled chip breaking.**

##### Note:

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

$a_{e max} = 0.07 \times D$  for TPC machining.

Tolerance nominal Ø: f8

No. of teeth Z: 5

Helix angle: 40 degrees

Direction of infeed: horizontal and oblique

Shank: DIN 6535 HB to h6

Balance quality with shank: G 2.5 with HB

No. of teeth Z: 5

Flute length  $L_c$ : 36 mm

Overhang length  $L_1$  incl. recess: 45 mm

Recess Ø  $D_1$ : 11.8 mm

Overall length L: 93 mm

Shank Ø  $D_s$ : 12 mm

#### Technical description

Shank Ø $D_s$	12 mm
Overall length L	93 mm

Direction of infeed	horizontal and oblique
Balance quality with shank	G 2.5 with HB
Corner chamfer width at 45°	0.24 mm
Tolerance nominal $\varnothing$	f8
No. of teeth Z	5
Cutting edge $\varnothing D_c$	12 mm
Shank	DIN 6535 HB to h6
Recess $\varnothing D_1$	11.8 mm
Overhang length $L_1$ incl. recess	45 mm
Helix angle	40 degrees
Average chip thickness $h_{max}$ for TPC milling in Toolox 44 HRC	0.06 mm
Flute length $L_c$	36 mm
Corner chamfer angle	45 degrees
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	$0.07 \times D$
Through-coolant	no
Machining strategy	TPC
Colour ring	green
Type of product	End mill