

## Garant

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



#### Order data

Order number	203093 12
GTIN	4045197953964
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:

$a_{e\max} = 0.05 \times D$  for TPC machining.

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

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  $L_c$ : 48 mm

Overall length L: 100 mm

Shank Ø  $D_s$ : 12 mm

Corner chamfer width at 45°: 0.24 mm

Average chip thickness  $h_{\max}$  for TPC milling in Toolox 44 HRC: 0.054 mm

#### Technical description

Cutting edge Ø $D_c$	12 mm
Shank	DIN 6535 HB to h6

Shank $\varnothing D_s$	12 mm
Direction of infeed	horizontal and oblique
Flute length $L_c$	48 mm
Corner chamfer width at 45°	0.24 mm
Average chip thickness $h_{max}$ for TPC milling in Toolox 44 HRC	0.054 mm
Overall length L	100 mm
No. of teeth Z	5
Helix angle	40 degrees
Balance quality with shank	G 2.5 with HB
Tolerance nominal $\varnothing$	f8
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	0.05×D
Through-coolant	no
Machining strategy	TPC
Colour ring	green
Type of product	End mill