

**Garant**
**Solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 8mm**

**Order data**

Order number	203089 8
GTIN	4045197640932
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.

Note:

$a_e \max = 0.07 \times D$  for TPC machining.  $h_{\max}$ : The values stated in the table are maximum values. For finishing operations we recommend items No. 204012, 204014 and 204015. NEW GENERATION AVAILABLE! Recommended successor product is No. 203092.

**Technical description**

Recess Ø $D_1$	7.8 mm
Cutting edge Ø $D_c$	8 mm
Corner chamfer width at 45°	0.16 mm
Overhang length $L_1$ incl. recess	30 mm
No. of teeth $Z$	5
Average chip thickness $h_{\max}$ for TPC milling in Toolox 44 HRC	0.042 mm
Shank Ø $D_s$	8 mm
Overall length $L$	68 mm
Flute length $L_c$	24 mm
Direction of infeed	horizontal and oblique

Shank	DIN 6535 HB to h6
Tolerance nominal $\varnothing$	f8
Balance quality with shank	G 2.5 with HB
Helix angle	40 degrees
Corner chamfer angle	45 degrees
Number of chip separators	1
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 / face mill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	380 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	340 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	300 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	230 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	150 m/min	P
TOOLOX 33	suitable	60 m/min	H
TOOLOX 44	suitable	40 m/min	H
HARDOX 500 < 1600 N/mm <sup>2</sup>	suitable	25 m/min	H

INOX < 900 N/mm <sup>2</sup>	suitable	220 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	150 m/min	M
Uni	suitable		
wet maximum	Suitable		
dry	Suitable only under restricted conditions		
Air	suitable		