

## Garant

### GARANT Master Alu solid carbide milling cutter with more chip separators TPC, DLC, Ø h6 DC: 4mm



#### Order data

Order number	203114 4
GTIN	4062406249618
Item class	11X

#### Description

##### Version:

**Specially designed for** TPC high-performance milling. **Optimised bending strength** due to the use of ultra-fine grain substrates. **1xD** chip separator for controlled chip breaking.

**Balanced** for very high process reliability and protecting the machine at high speeds.

##### Application:

Especially for milling **aluminium and non-ferrous metals**.

##### Note:

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

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

**Successor product for No. 202281, 202282.**

#### Technical description

Cutting edge Ø $D_c$	4 mm
Shank	DIN 6535 HA to h6
Recess Ø $D_1$	3.7 mm
Shank Ø $D_s$	6 mm
Direction of infeed	horizontal and oblique
No. of teeth Z	4
Flute length $L_c$	17 mm
Overall length L	65 mm

Average chip thickness $h_{\max}$ for TPC milling in short-chipping aluminium	0.026 mm
Balance quality with shank	G 2.5 with HA
Tolerance nominal $\varnothing$	h6
Shank form	HA
Overhang length $L_1$ incl. recess	23 mm
Helix angle	38 degrees
Corner rounding $r_v$	0.05 mm
Series	Master Alu
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Spacing of the cutters	unequal spacing
Cutting width $a_e$ for milling operation	0.12xD
Through-coolant	no
Machining strategy	TPC
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium	Suitable	500 m/min	N
Aluminium (short chipping)	Suitable	450 m/min	N
Alu > 10% Si	suitable	400 m/min	N
PMMA acrylic	Suitable	180 m/min	N
PE-HD	Suitable	140 m/min	N
PA 66	Suitable	180 m/min	N

PEEK	suitable	130 m/min	N
PF 31	Suitable	110 m/min	N
PVDF GF20	Suitable	160 m/min	N
POM GF25	Suitable	140 m/min	N
PA 66 GF30	Suitable	120 m/min	N
PEEK GF30	Suitable	140 m/min	N
PTFE CF25	Suitable	260 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	260 m/min	N
Cu	Suitable	140 m/min	N
CuZn	Suitable	120 m/min	N
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		

## Services

Shank grinding Type HB

129100 HB