

Garant

GARANT Master Alu solid carbide milling cutter with more chip separators TPC, DLC, Ø h6 DC: 12mm



Order data

Order number	203113 12
GTIN	4062406245788
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.

$ae_{max} = 0.15 \times D$ for TPC machining.

Technical description

Cutting edge Ø D_c	12 mm
Balance quality with shank	G 2.5 with HB
Average chip thickness h_{max} for TPC milling in short-chipping aluminium	0.086 mm
Overhang length L_1 incl. recess	45 mm
Flute length L_c	36 mm
Direction of infeed	horizontal and oblique
Shank	DIN 6535 HB to h6
Helix angle	38 degrees

Overall length L	93 mm
Recess $\varnothing D_1$	11 mm
Shank form	HB
No. of teeth Z	4
Shank $\varnothing D_s$	12 mm
Tolerance nominal \varnothing	h6
Corner rounding r_v	0.1 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	$0.15 \times D$
Through-coolant	no
Machining strategy	TPC
Colour ring	yellow
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Aluminium	Suitable	550 m/min	N
Aluminium (short chipping)	suitable	500 m/min	N
Alu > 10% Si	Suitable	450 m/min	N
PMMA acrylic	Suitable	200 m/min	N
PE-HD	Suitable	160 m/min	N
PA 66	Suitable	200 m/min	N
PEEK	Suitable	150 m/min	N

PF 31	Suitable	130 m/min	N
PVDF GF20	Suitable	180 m/min	N
POM GF25	Suitable	160 m/min	N
PA 66 GF30	Suitable	150 m/min	N
PEEK GF30	Suitable	130 m/min	N
PTFE CF25	Suitable	160 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	300 m/min	N
Cu	Suitable	160 m/min	N
CuZn	suitable	200 m/min	N
wet maximum	Suitable		
wet minimum	Suitable only under restricted conditions		
dry	suitable		
Air	Suitable		