

## Garant

### GARANT Master Alu solid carbide milling cutter, HPC HPC, DLC, Ø h6 DC: 12mm



#### Order data

Order number	203203 12
GTIN	4062406119393
Item class	11X

#### Description

##### Version:

For finishing operations.  
 Special geometry for optimum chip evacuation.  
 Unequal spacing gives high intrinsic stability and smooth cutting action.  
 For profile milling as a finishing operation.

##### Note:

Order the **uncoated version** using **No. 203207**.

#### Technical description

Feed $f_z$ for side milling in short-chipping aluminium	0.07 mm
Balance quality with shank	G 2.5 with HA
Overall length L	93 mm
Direction of infeed	horizontal
Flute length $L_c$	36 mm
Shank $\varnothing D_s$	12 mm
Cutting edge $\varnothing D_c$	12 mm
Recess $\varnothing D_1$	11.5 mm
Shank	DIN 6535 HA to h6
No. of teeth Z	5

Helix angle	38 degrees
Tolerance nominal $\varnothing$	h6
Overhang length $L_1$ incl. recess	45 mm
Corner chamfer angle	90 degrees
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	$0.1 \times D$ for side milling
Through-coolant	no
Machining strategy	HPC
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		

### Services

Shank grinding Type HB

129100 HB