

Garant
Solid carbide milling cutter HPC, TiAlN, Ø DC: 12mm

Order data

Order number	203212 12
GTIN	4045197641021
Item class	11X

Description
Version:
GARANT Diabolo 70:

Special solid carbide substrate with extremely high tensile strength combined with **outstanding wear resistance** for optimum process reliability. Newly developed **nano-crystalline high-tech coating for hard milling up to 70 HRC**. Very suitable for **continuous use** in tool and mould making.

Sizes 2 – 5: **Recess angle $\alpha = 15^\circ$** .

Tolerance:

- **Size nominal $\varnothing: D_c \leq$ size 12: 0 / -0.02 mm;**
- **Size nominal $\varnothing: D_c$ from size 16: 0 / -0.03 mm.**

Application:

Due to the **special hard geometry** ideal for use on hardened materials from 60 HRC to 70 HRC.

For profile milling as finishing.

(Plunge cutting only to shallow depths.)

Note:

For materials > 65 HRC: $a_e = 0.02 \times D$.

Technical description

Cutting edge $\varnothing D_c$	12 mm
No. of teeth Z	6
Feed f_z for side milling in steel < 70 HRC	0.035 mm
Shank $\varnothing D_s$	12 mm
Overall length L	74 mm

Flute length L_c	26 mm
Direction of infeed	horizontal and oblique
Shank	DIN 6535 HA to h6
Tolerance nominal \varnothing	0 / -0.02
Helix angle	45 degrees
Corner chamfer angle	90 degrees
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Cutting width a_e for milling operation	0.05×D for side milling
Through-coolant	no
Machining strategy	HPC
Colour ring	red
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel < 60 HRC	suitable only under restricted conditions	145 m/min	H
Steel < 65 HRC	suitable	100 m/min	H
Steel < 67 HRC	suitable	80 m/min	H
Steel < 70 HRC	suitable	75 m/min	H
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		

Services

Shank grinding Type HB	129100 HB
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