

**Garant**
**Solid carbide copy slot drill, DLC, Ø DC × L1: 1,2X10mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 207023 1,2X10 |
| GTIN         | 4045197916396 |
| Item class   | 11X           |

**Description**
**Version:**

With **advanced DLC sp<sup>2</sup> coating**. For the **highest demands regarding performance and precision in aluminium materials**. **Extremely tight tolerances** ensure maximum accuracy. Double-relief ground with 2 chamfers hollow ground.

Recess angle  $\alpha = 16^\circ$ .

Tolerances:

- **Corner radius: Radius contour = 0 / -0.005 mm.**
- **Neck Ø: D<sub>1</sub> = 0 / -0.01 mm.**

**Note:**

At greater tool overhang lengths, use a reduced value for a<sub>p</sub>!

values for:

copying:  $a_p = 0.25 \times D \times a_{p, \text{korr}}$

**To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)!**

e.g:  $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$

**Technical description**

|  |         |
|--|---------|
| Feed f <sub>z</sub> for copy milling in cast aluminium | 0.03 mm |
| Overhang length L <sub>1</sub> incl. recess            | 10 mm   |
| Cutting edge Ø D <sub>c</sub>                          | 1.2 mm  |
| Overall length L                                       | 45 mm   |
| Flute length L <sub>c</sub>                            | 0.96 mm |
| No. of teeth Z   | 2       |

|   |                                  |
|---|----------------------------------|
| Shank $\varnothing D_s$                   | 4 mm                             |
| Recess $\varnothing D_1$                  | 1.16 mm                          |
| Corner radius $R_1$                       | 0.6 mm                           |
| Helix angle                               | 30 degrees                       |
| Correction factor $a_{p\text{corr}}$      | 0.8                              |
| Coating                                   | DLC                              |
| Tool material                             | Solid carbide                    |
| Standard                                  | Manufacturer's standard          |
| Type                                      | W                                |
| Tolerance nominal $\varnothing$           | 0 / -0.005                       |
| Direction of infeed                       | horizontal, oblique and vertical |
| Cutting width $a_e$ for milling operation | 0.05×D for copy milling          |
| Shank                                     | DIN 6535 HA to h5                |
| Through-coolant                           | no                               |
| Colour ring                               | yellow                           |
| Type of product                           | Ball-nosed slot drill            |

## User data

|                            | Suitability | $V_c$     | ISO code |
|----------------------------|-------------|-----------|----------|
| Aluminium                  | suitable    | 480 m/min | N        |
| Aluminium (short chipping) | suitable    | 440 m/min | N        |
| Alu > 10% Si               | suitable    | 400 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                                  |           |   |
| dry                | suitable only under restricted conditions |           |   |
| Air                | suitable                                  |           |   |