

**Garant****Solid carbide ball nose milling cutter, DLC, Ø f8 DC: 20mm****Order data**

|              |               |
|--------------|---------------|
| Order number | 207443 20     |
| GTIN         | 4045197591203 |
| Item class   | 11X           |

**Description****Version:**

With **the latest generation of DLC coating sp<sup>2</sup>**.

For **high-performance milling of aluminium materials**. 4 centre cutting edges to the centre.

Can therefore be used as a true **4-edge drill** in all cutting depths; for hardened steel.

Tolerance: Radius contour = **±0.005 mm**.

**Technical description**

|                                                        |                         |
|--------------------------------------------------------|-------------------------|
| No. of teeth Z                                         | 4                       |
| Overhang length L <sub>1</sub> incl. recess            | 92 mm                   |
| Cutting edge Ø D <sub>c</sub>                          | 20 mm                   |
| Recess Ø D <sub>1</sub>                                | 19 mm                   |
| Feed f <sub>z</sub> for copy milling in cast aluminium | 0.2 mm                  |
| Shank Ø D <sub>s</sub>                                 | 20 mm                   |
| Overall length L                                       | 150 mm                  |
| Flute length L <sub>c</sub>                            | 40 mm                   |
| Helix angle                                            | 45 degrees              |
| Radius R                                               | 10 mm                   |
| Coating                                                | DLC                     |
| Tool material                                          | Solid carbide           |
| Standard                                               | Manufacturer's standard |

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| Type                                      | W                                |
| Tolerance nominal Ø                       | f8                               |
| Direction of infeed                       | horizontal, oblique and vertical |
| Cutting width $a_e$ for milling operation | 0.1×D for copy milling           |
| Shank                                     | DIN 6535 HA to h6                |
| Through-coolant                           | no                               |
| Colour ring                               | yellow                           |
| Type of product                           | Ball-nosed slot drill            |

## 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                                  | 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                                  | 120 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<br>restricted conditions |
| <del>Air</del> | <del>Suitable</del>                          |

**Services**

|                        |           |
|------------------------|-----------|
| Shank grinding Type HB | 129100 HB |
|------------------------|-----------|