

**Garant****Solid carbide HPC micro-drill, TiAlN, Ø DC +0.004: 1,5mm****Order data**

|              |               |
|--------------|---------------|
| Order number | 121220 1,5    |
| GTIN         | 4045197264459 |
| Item class   | 11E           |

**Description****Version:**

High performance miniature drill **with extra long flutes.**

Shank Ø 3 h6 for shrink-fit chucks.

High concentricity, precision ground for **HPC applications in steel.**

**Note:**

Flute length  $L_c = L_2 + 1.5 \times D_c$ .

**Technical description**

|                                           |                         |
|-------------------------------------------|-------------------------|
| Nominal Ø $D_c$                           | 1.5 mm                  |
| Feed $f$ in steel $< 1100 \text{ N/mm}^2$ | 0.04 mm/rev.            |
| Number of cutting edges $Z$               | 2                       |
| Shank tolerance                           | h6                      |
| Flute length $L_c$                        | 10.5 mm                 |
| Tolerance nominal Ø                       | 0 / 0.004               |
| Shank Ø $D_s$                             | 3 mm                    |
| Overall length $L$                        | 38 mm                   |
| Standard                                  | Manufacturer's standard |
| recommended maximum drilling depth $L_2$  | 8.3 mm                  |
| Coating                                   | TiAlN                   |
| Tool material                             | Solid carbide           |

|                    |                      |
|--------------------|----------------------|
| Type               | N                    |
| Point angle        | 130 degrees          |
| Shank              | Parallel shank to h6 |
| Through-coolant    | no                   |
| Machining strategy | HPC                  |
| Semi-Standard      | yes                  |
| Colour ring        | without              |
| Type of product    | Jobber drill         |

## User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|-------------------------------------------|----------------|----------|
| Alu plastics                   | suitable only under restricted conditions | 200 m/min      | N        |
| Aluminium (short chipping)     | suitable                                  | 140 m/min      | N        |
| Alu > 10% Si                   | suitable only under restricted conditions | 140 m/min      | N        |
| Steel < 500 N/mm <sup>2</sup>  | suitable                                  | 70 m/min       | P        |
| Steel < 750 N/mm <sup>2</sup>  | suitable                                  | 70 m/min       | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 70 m/min       | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 55 m/min       | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 35 m/min       | P        |
| Steel < 55 HRC                 | suitable only under restricted conditions | 25 m/min       | H        |
| INOX < 900 N/mm <sup>2</sup>   | suitable                                  | 35 m/min       | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 30 m/min       | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable                                  | 20 m/min       | S        |
| GG(G)                          | suitable                                  | 90 m/min       | K        |
| CuZn                           | suitable                                  | 140 m/min      | N        |
| Uni                            | suitable                                  |                |          |

|             |                                           |
|-------------|-------------------------------------------|
| wet maximum | suitable                                  |
| dry         | suitable only under restricted conditions |