

**Garant**
**Jobber drill HSS-E-PM HPC, TiAlN, Ø DC h8: 12mm**

**Order data**

|              |               |
|--------------|---------------|
| Order number | 114610 12     |
| GTIN         | 4045197856937 |
| Item class   | 11B           |

**Description**
**Version:**

**High-performance HPC twist drills** for high-alloy and high tensile materials. Particularly strong due to **strengthened core and a parabolic flute profile**. Point geometry with rake angle correction. Precise concentricity for exact holes.

With form S point.

**Recommendation:**
**Maximum drilling depth:**

$$L_2 = L_c - 1.5 \times D_c.$$

**Technical description**

|   |              |
|---|--------------|
| Feed f in steel < 900 N/mm <sup>2</sup>           | 0.17 mm/rev. |
| Flute length L <sub>c</sub>                       | 101 mm       |
| Number of cutting edges Z                         | 2            |
| Shank Ø D <sub>s</sub>                            | 12 mm        |
| Overall length L                                  | 151 mm       |
| Tolerance nominal Ø                               | h8           |
| Nominal Ø D <sub>c</sub>                          | 12 mm        |
| recommended maximum drilling depth L <sub>2</sub> | 83 mm        |
| Standard  | DIN 338      |
| Point angle                                       | 130 degrees  |
| Shank   | Plain shank  |

|                    |              |
|--------------------|--------------|
| Coating            | TiAlN        |
| Tool material      | HSS E PM     |
| Helix angle        | 38 degrees   |
| Through-coolant    | no           |
| Machining strategy | HPC          |
| Colour ring        | green        |
| Type of product    | Jobber drill |

### User data

|                                | Suitability                               | V <sub>c</sub> | ISO code |
|--------------------------------|---|----------------|----------|
| Alu plastics                   | suitable only under restricted conditions | 80 m/min       | N        |
| Aluminium (short chipping)     | suitable only under restricted conditions | 70 m/min       | N        |
| Alu > 10% Si                   | suitable only under restricted conditions | 60 m/min       | N        |
| Steel < 750 N/mm <sup>2</sup>  | suitable only under restricted conditions | 50 m/min       | P        |
| Steel < 900 N/mm <sup>2</sup>  | suitable                                  | 40 m/min       | P        |
| Steel < 1100 N/mm <sup>2</sup> | suitable                                  | 25 m/min       | P        |
| Steel < 1400 N/mm <sup>2</sup> | suitable                                  | 14 m/min       | P        |
| INOX < 900 N/mm <sup>2</sup>   | suitable only under restricted conditions | 20 m/min       | M        |
| INOX > 900 N/mm <sup>2</sup>   | suitable                                  | 15 m/min       | M        |
| Ti > 850 N/mm <sup>2</sup>     | suitable only under restricted conditions | 12 m/min       | S        |
| GG(G)                          | suitable                                  | 50 m/min       | K        |
| CuZn                           | suitable only under restricted conditions | 60 m/min       | N        |
| Uni                            | suitable                                  |                |          |
| Oil                            | suitable                                  |                |          |

wet maximum

suitable