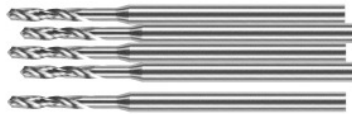


**Garant**
**Micro drill set HSS-E-PM N, uncoated, Ø DC -0.004: 1,80mm**

**Order data**

Order number	112305 1,80
GTIN	4067263761334
Item class	11A

**Description**
**Version:**

Special drill with reinforced shank, high concentricity and precision ground point.

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

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

**Technical description**

Shank	Plain shank with h8
Number of cutting edges Z	2
Number of drills	5
Feed f in steel < 900 N/mm <sup>2</sup>	0.052 mm/rev.
Shank Ø D <sub>s</sub>	2 mm
Flute length L <sub>c</sub>	13.8 mm
Overall length L	30 mm
Nominal Ø D	1.8 mm
Coating	uncoated
Tool material	HSS E PM
Standard	DIN 1899 A

Type	N
Tolerance nominal $\varnothing$	0 / -0.004
Point angle	118 degrees
Through-coolant	no
Colour ring	without
Type of product	Twist Drill

### User data

	Suitability	$V_c$	ISO code
Alu plastics	suitable	70 m/min	N
Aluminium (short chipping)	suitable	45 m/min	N
Alu > 10% Si	suitable only under restricted conditions	40 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	10 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	8 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	12 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	8 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	5 m/min	S
GG(G)	suitable only under restricted conditions	25 m/min	K
CuZn	suitable	80 m/min	N
Uni	suitable only under restricted conditions		
Oil	suitable		
wet maximum	suitable		

