

**Garant**
**Solid carbide HPC drill, plain shank DIN 6535 HA, DLC, Ø DC h7: 3,1mm**

**Order data**

Order number	123178 3,1
GTIN	4045197754875
Item class	11E

**Description**
**Version:**

**DLC coating**  $sp^2$  of the latest generation with **low coefficient of friction** results in **outstanding chip clearance**. For **high-performance milling** of **aluminium materials**. **High roundness** and **alignment accuracy of the deep hole**, thanks to **6 guide chamfers**.

**Note:**

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

For process reliability when using the 12xD drill, an initial centre drilling with NC spotting drills No. 121068– 121130 is necessary.

Form HB and HE are supplied at the same price as HA.

Order form **HB**: with **No. 123179**.

Order form **HE**: with **No. 123178 + 129100HE**.

**Technical description**

Feed f in aluminium short-chipping	0.35 mm/rev.
Flute length $L_c$	54 mm
Standard	Manufacturer's standard
Nominal $\varnothing D_c$	3.1 mm
Shank tolerance	h6
Tolerance nominal $\varnothing$	h7
Shank $\varnothing D_s$	6 mm
Overall length L	92 mm
Number of cutting edges Z	2

recommended maximum drilling depth L <sub>2</sub>	49.4 mm
Coating	DLC
Tool material	solid carbide
Version	12×D
Type	W
Point angle	135 degrees
Shank	DIN 6535 HA to h6
Through-coolant	yes, with 25 bar
Machining strategy	HPC
Semi-Standard	yes
Colour ring	yellow
Type of product	Jobber drill

## User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	250 m/min	N
Aluminium (short chipping)	suitable	280 m/min	N
Alu > 10% Si	suitable	245 m/min	N
PMMA acrylic	suitable	105 m/min	N
PEEK	suitable	85 m/min	N
PVDF GF20	suitable	60 m/min	N
PA 66 GF30	suitable	55 m/min	N
PEEK GF30	suitable	50 m/min	N
PTFE CF25	suitable	55 m/min	N
Cu	suitable	120 m/min	N
CuZn	suitable	150 m/min	N
GRP	suitable	55 m/min	N
CRP	suitable	55 m/min	N

wet maximum	suitable
wet minimum	suitable

**Services**

Shank grinding Type HE	129100 HE
------------------------	-----------