

**Garant**
**Centre drill HSS-E-PM A, TiAlN, Nominal Ø DC k12: 1mm**

**Order data**

Order number	111105 1
GTIN	4045197797179
Item class	11A

**Description**
**Version:**

Ground from solid and relief ground, spiral fluted.

**Technical description**

Feed f in steel < 900 N/mm <sup>2</sup>	0.02 mm/rev.
Shank Ø D <sub>s</sub>	3.15 mm
Number of cutting edges Z	2
Nominal Ø D <sub>c</sub>	1 mm
Shank tolerance	h7
Overall length L	31.5 mm
for workpiece Ø	6 – 8 mm
Coating	TiAlN
Tool material	HSS E PM
Standard	DIN 333
Type	A
Tolerance nominal Ø	k12
Countersink angle	60 degrees
Cutting direction	right-hand
Shank	Parallel shank to h7

Through-coolant	no
Colour ring	without
Type of product	Centre drill

## User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	100 m/min	N
Aluminium (short chipping)	suitable	60 m/min	N
Alu > 10% Si	suitable	40 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	60 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	50 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	20 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	10 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	5 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	15 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	10 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	8 m/min	S
GG(G)	suitable	40 m/min	K
CuZn	suitable	80 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		