

**Garant**
**Solid carbide engraving cutter, spiral flutes 60°, TiAlN, Ø h6 DC: 3mm**

**Order data**

Order number	208086 3
GTIN	4062406390426
Item class	11X

**Description**
**Version:**

**Outstanding surface qualities** thanks to the **35° helix angle**. For **higher feed rates** due to **2 cutting edges**. Engraving cutter for **universal use** in virtually all materials. The newly developed coating effectively prevents built-up edges, even in aluminium or stainless steel.

**Application:**

For engraving contours.

**Note:**

$f_z$  for  $a_e = 1.0 \times D$

**Technical description**

Cutting edge Ø $D_c$	3 mm
Corner chamfer angle	30 degrees
Flute length $L_c$	3 mm
Shank	DIN 6535 HA to h6
Overall length $L$	50 mm
Feed $f_z$ in steel < 900 N/mm <sup>2</sup>	0.03 mm
No. of teeth $Z$	2
Shank Ø $D_s$	3 mm
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard

Type	N
Tolerance nominal $\varnothing$	h6
Helix angle	35 degrees
Countersink tip angle	60 degrees
Through-coolant	no
Shank tolerance	h6
Colour ring	green
Type of product	Indexable end mill

### User data

	Suitability	$V_c$	ISO code
Alu plastics	Suitable only under restricted conditions	180 m/min	N
Aluminium (short chipping)	suitable	300 m/min	N
Alu > 10% Si	suitable	220 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	115 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	80 m/min	P
Steel < 1400 N/mm <sup>2</sup>	Suitable only under restricted conditions	65 m/min	P
Steel < 55 HRC	Suitable only under restricted conditions	35 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	90 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	70 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	50 m/min	S
GG(G)	suitable	100 m/min	K
Uni	suitable		
wet maximum	suitable		

wet minimum	Suitable only under restricted conditions
dry	Suitable only under restricted conditions
Air	Suitable only under restricted conditions