



CNC DIRECT

SUPPLIERS OF QUALITY CNC MACHINES & ACCESSORIES



Aluminium EN AW-7075 Properties and Applications

Typical physical properties:

Density [g/cm ³]	2.80	
Elastic modulus [GPa]	72	
Thermal conductivity [W/m*K]	130-160	
Thermal expansion Coefficient [K ⁻¹ *10 ⁻⁶]	-50°C - 20°C	21,6
	20°C - 100°C	23,4
	20°C - 200°C	24,3
	20°C - 300°C	25,2
Specific heat J/(kg*k)	862	
Electrical conductivity [m/Ω*mm ²]	19-23	
Shear modulus [GPa]	27,1	

Special features of this material:

- Curable alloy with very high strength
- Very high fatigue strength
- Good machinability

Applications:

- Toolmaking, mould making and model making
- Aerospace
- Military technology

Chemical composition (EN 573-3):

Specifications in %											Remainder: Aluminium		Total	
Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	Note	Individual	Total	
0,40	0,50	1,2-2,0	0,30	2,1-2,9	0,18-0,28	-	5,1-6,1	0,20	-	-	³	0,05	0,15	
<i>x Chemical specifications as perc. of weight. If no ranges are specified, the alloy content has the maximum value</i>														
<i>² Includes all items listed for which no limit values are specified</i>														
<i>³ Sum for Zr+Ti max. 0,25. This applies to forged or extruded products when the value has been agreed upon between the customer and supplier</i>														

Processing / machinability:

Soft annealed	-
Work-hardened	-
Cured	2
Dimensional stability	4-5
Erosion	1

Welding:

Gas	5
WIG	5
MIG	5
Resistance welding	2

Corrosion Resistance:

In a normal atmosphere/weather conditions	4
Sea water atmosphere	4

Surface treatment:

Anodising – (protective anodisation)	3	Suitable for food industry according to DIN EN 602	No
Special anodising quality (EQ) ^{EQ}	-		
Anodising – decorative	5	Working temperature	Long-term approx., 90°C Short-term approx., 110°C - 125°C
Painting / coating	3		
Polishing	1		

Legend:

1. Very good
 2. Good
 3. Moderate
 4. Poor
 5. Unsuitable
- EQ Anodising quality must be ordered separately and confirmed

The specifications in our data sheets are subject to correction and are only valid as references. Liability is excluded in this regard. We reserve the right to make changes to the standards and informative values. The agreements of our order confirmation are always authoritative. With regard to anodic oxidisability, we point out that we accept no liability for the anodisation result and the colour formation for decorative applications. The same applies to the corrosion resistance. Special arrangements must be made in writing.

CNC DIRECT LTD & HIGH GRADE METALS LTD

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Aluminium EN AW-7075

Sizes stocked

Rolled Plate

5mm x 2520 x 1270	65mm x 2520 x 1270
10mm x 2520 x 1270	70mm x 2520 x 1270
15mm x 2520 x 1270	80mm x 2520 x 1270
20mm x 2520 x 1270	90mm x 2520 x 1270
25mm x 2520 x 1270	100mm x 2020 x 1020
30mm x 2520 x 1270	110mm x 3020 x 1250
40mm x 3020 x 1520	120mm x 3020 x 1150
50mm x 2520 x 1270	130mm x 2020 x 1020
60mm x 2520 x 1270	150mm x 2520 x 1300

7075 Round Bar

25 mm dia	110 mm dia
35 mm dia	120 mm dia
40 mm dia	130 mm dia
45 mm dia	150 mm dia
55 mm dia	170 mm dia
65 mm dia	180 mm dia
75 mm dia	200 mm dia
80 mm dia	210 mm dia
90 mm dia	250 mm dia
100mm dia	

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