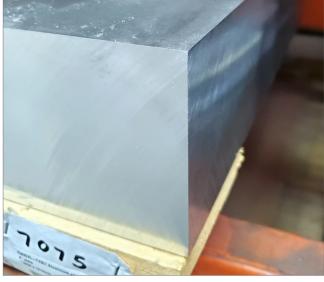


# 7075 Aluminium

COMMERCIAL ALUMINIUM ALLOY

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- Very high tensile and yield strength
- Superior stress corrosion
- Fair machinability

**Key Features** 

■ Up to 500 MPa yield and 560 MPa tensile strength depending on the chosen temper

## **Product Overview**

Used in applications where the strength of the material is critical whilst good corrosion resistance is not essential, 7075 aluminium allov is a high-strength aerospace aluminium grade.

Benefitting from very high yield and tensile strengths determined by the temper chosen, the alloy also offers superior stress corrosion resistance. The machinability of 7075 aluminium alloy is fair. We stock the material in various grades and forms, including T651 plates.

# **Availability:**

■ Bar, sheet & plate

# **Applications**

- Aircraft structures
- Shafts and gears
- Automotive components
- Military applications

### \* Chemical Composition (weight, %)

	Si	Fe	Cu	Mn	Cr	Mg	Zn	Ti	Al	Others
Min.			1.20		0.18	2.10	5.10		Bal	
Max.	0.40	0.50	2.00	0.30	0.28	2.90	6.10	0.20	Bal	0.15

<sup>\*</sup> Properties as per BS EN 573-3

#### \* Mechanical Properties

Tensile Strength	560 MPa min.
Yield Strength	500 MPa min.
Elongation	7% min.
Hardness (typical)	150 HBW

<sup>\*</sup> Properties as per BS EN 755-2, T6/T6510/T6511 (25-100mm)

#### **Physical Properties**

Danaite	2.01 =/3
Density	2.81 g/cm <sup>3</sup>
Melting Point	635 °C
Modulus of Elasticity	72 GPa
Thermal Conductivity	134-160 W/m.K
Electrical Resistivity	40% IACS



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