7075 Aluminium

Technical Datasheet



Commercial Aluminium Alloy

Service. Quality. Value.

Applications

- Aircraft structures
- Gears & shafts
- Automotive

Product Description

7075 aluminium alloy is a very high strength aerospace aluminium and is commonly used in applications where the strength of the material is critical and where the need for good corrosion resistance is not important. Offering superior stress corrosion resistance, 7075 provides very high yield and tensile strengths which is dictated by the particular chosen temper.

Key features:

- Very high strength aerospace aluminium
- Used where high strength is critical and where good corrosion resistance is not important
- Up to 465 MPa yield strength and 540 MPa tensile strength depending on temper
- Superior stress corrosion

Machinability

Fair

Availability

Bar, sheet, plate

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

Mechanical Properties

Tensile Strength 40-78 ksi, 275 - 540 MPa **Yield Strength** 24-68 ksi, 455 - 465 MPa

Physical Properties

Density2.81 g/cm³Melting Point635 °CModulus of Elasticity72 GPaThermal Conductivity134-160 W/m.KElectrical Resistivity40% IACS

Properties dependent on chosen temper.

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

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 Smiths Biggleswade
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 Smiths Birmingham
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Quality & Testing:





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