

3003 Aluminium

Technical Datasheet

Commercially Pure Aluminium Alloy

Applications

- Storage tanks
- Chemical equipment
- Cooking & kitchen equipment
- Heat exchangers

Product Description

3003 aluminium alloy is a commercially pure aluminium which boasts excellent mechanical properties and is a widely used aluminium throughout industry. It is a medium strength alloy with very good resistance to atmospheric corrosion. The alloy boasts improved mechanical properties when compared with 1000 series alloys and is 20% stronger than 1100.

Corrosion Resistance

Very good

Availability

Sheet, Round bar, Flange, fittings

Key features:

- Very good corrosion resistance
- Very good workability
- 20% stronger than 1100
- Very good weldability

Weldability

Very good

Chemical Composition (weight %)

Weight (%)	Mn	Fe	Cu	Mg	Si	Zn	Al	Others
min	1.10		0.05				Bal	
max.	1.50	0.70	0.20	0.05	0.60	0.10	Bal	0.15

Mechanical Properties

Tensile Strength	110 MPa
Elongation A50 mm	25 %
Shear Strength	75 MPa
Hardness Vickers	29 HV
Proof Stress	50 MPa

Physical Properties

Density	2.73 g/cm ³
Melting Point	655°C
Thermal Expansion	23.1x10 ⁻⁶ /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	190 W/m.K

The properties above are for material in the soft 'O' condition.