

3003 Aluminium

Technical Datasheet



Service. Quality. Value.

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

Key features:

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

Related Material Specifications

3003 - 0 Sheet

- AMS 4006
- QQ-A-250/2
- ASTM B 209

3003 H-14 Sheet

- AMS 4008
- QQ-A-250/2
- ASTM B 209

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.

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.

UK Service Centres:

Smiths Belfast	02895 908 897
Smiths Biggleswade	01767 604 704
Smiths Birmingham	0121 728 4940
Smiths Bristol	0117 971 2800
Smiths Chelmsford	01245 466 664
Smiths Gateshead	0191 469 5428
Smiths Horsham	01403 261 981

Smiths Leeds	0113 307 5167
Smiths Manchester	0161 794 8650
Smiths Norwich	01603 789 878
Smiths Nottingham	0115 925 4801
Smiths Redruth	01209 315 512
Smiths Verwood	01202 824 347
Main Office	0845 527 3331

Quality & Testing:



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