



## Aluminium Alloy 3103 H14 Sheet

## Material Data Sheet

### Specifications

- Commercial: 3103
- EN: 3103

### Alloy Designations

Aluminium alloy 3103 corresponds to the following standard designations and specifications but may not be a direct equivalent: ISO Al Mn1.

### Supplied Forms

Alloy 3103-H14 is normally supplied as sheet.

### Temper Types

The most common temper for 3103 aluminium is: H14 - work hardened by rolling half hard, not annealed after rolling.

### Fabrication

- Solderability: Very Good
- Weldability - Gas: Very Good
- Weldability - Arc: Very Good
- Weldability - Resistance: Good
- Brazability: Very good
- Workability - Cold: Good
- Machinability: Acceptable

### Weldability

Alloy 3103 has very good weldability.

### Chemical Composition

Element	% Present
Manganese (Mn)	0.90 - 1.50
Iron (Fe)	0.0 - 0.70
Silicon (Si)	0.0 - 0.50
Magnesium (Mg)	0.0 - 0.30
Zinc (Zn)	0.0 - 0.20
Others (Total)	0.0 - 0.15
Chromium (Cr)	0.0 - 0.10
Copper (Cu)	0.0 - 0.10
Titanium + Zirconium (Ti+Zr)	0.0 - 0.10
Other (Each)	0.0 - 0.05
Aluminium (Al)	Balance



### Mechanical Properties

Property	Value
Proof Stress	120 Min MPa
Tensile Strength	140 - 180 MPa
Hardness Brinell	45 HB

### Reference data for some physical properties (for guidance only)

Property	Value
Density	2.73 Kg/m <sup>3</sup>
Melting Point	655 °C
Thermal Expansion	23.1 x 10 <sup>-6</sup> /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	1609 W/m.K
Electrical Resistivity	42 % IACS

### Editor

thyssenkrupp Materials (UK) Ltd  
Cox's Lane  
Cradley Heath  
West Midlands  
B64 5QU

### Important Note

Information given in this data sheet about the condition or usability of materials respectively products are no warranty for their properties, but act as a description.

The information, we give on for advice, comply to the experiences of the manufacturer as well as our own. We cannot give warranty for the results of processing and application of the products.