

# **Aluminium 5251H22 Data Sheet**

Mechanical Properties shown are for H22 condition

## Chemical Composition

<b>BS EN573-3:2009 Alloy 5251</b>	
<b>Chemical Element</b>	<b>% Present</b>
Manganese (Mn)	0.10 - 0.50
Copper (Cu)	0.0 - 0.15
Magnesium (Mg)	1.70 - 2.40
Silicon (Si)	0.0 - 0.40
Zinc (Zn)	0.0 - 0.15
Chromium (Cr)	0.0 - 0.15
Titanium (Ti)	0.0 - 0.15
Other (Each)	0.0 - 0.05
Others (Total)	0.0 - 0.15
Iron (Fe)	0.0 - 0.50
Aluminium (Al)	Balance

## Generic Physical Properties

<b>Physical Property</b>	<b>Value</b>
Density	2.69 g/cm <sup>3</sup>
Melting Point	625 °C
Thermal Expansion	25 x10 <sup>-6</sup> /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	134 W/m.K
Electrical Resistivity	0.044 x10 <sup>-6</sup> Ω .m

## Mechanical Properties

<b>BS EN 485-2:2008 Sheet and Plate - 0.2mm to 25mm</b>	
<b>Mechanical Property</b>	<b>Value</b>
Proof Stress	120 Min MPa
Tensile Strength	190 - 230 MPa
Hardness Brinell	56 HB