

# PLASTESTRIP

## PROFILES

1-4 Enterprise Park, St Austell,  
Cornwall, PL25 4EJ, UK  
t: +44 (0)1726 74771  
f: +44 (0)1726 69238  
e: sales@plastestrip.com  
w: www.plastestrip.com

**General Manager**  
Patrick Hennelly: 07506 224144  
**Sales Manager**  
Mark Henderson: 07971 316106  
**Sales Office Manager**  
Claire Hemingway: 01726 74771

### 5251 - H22 Sheet and Plate

Aluminium alloy 5251 is a medium strength alloy possessing good ductility and therefore good formability. Alloy 5251 is known for work hardening rapidly and is readily weldable. It also possesses high corrosion resistance particularly in marine environments.

Mechanical Properties shown are for H22 condition - Mechanical properties for other tempers are shown on page 2.

### Chemical Composition

**Spec: BS EN573-3:2009**

#### Alloy 5251

Chemical Element	% Present
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

### Properties

Physical Property	Value
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

### Spec: BS EN 485-2:2008

#### Sheet and Plate - 0.2mm to 25mm

Mechanical Property	Value
Proof Stress	120 Min MPa
Tensile Strength	190 - 230 MPa
Hardness Brinell	56 HB

### Alloy Designations

Alloy 5251 corresponds to the following standard designations and specifications, **although may not be a direct equivalent:**

Al Mg2  
Al 2.0Mg 0.3Mn

### Supplied Forms

- Plate
- Sheet

### Weldability

Aluminium alloy 5251 is a readily weldable alloy. The recommended filler wire is 5356 when welding alloy 5251 to itself, 6XXX series alloys, 7XXX series alloys and most other 5XXX alloys. When welding alloy 5251 to 5005, 5020, 1XXX series or 3XXX series alloys, the recommended filler wire is 4043.

Weldability – Gas: Very Good  
Weldability – Arc: Very Good  
Weldability – Resistance: Very Good  
Brazability: Poor

### Fabrication

Workability – Cold: Very Good  
Machinability: Average

## TOMORROWS CLADDING TECHNOLOGY TODAY

### STOCKISTS & FABRICATORS

Façade support systems.  
Aluminium & plastic extrusions.  
Industrial & construction fixings i.e: screws,  
nails & rivets etc.  
Adhesive fixing systems.  
Building Membranes.



### SYSTEM TRADE NAMES

Amari Allface  
FastFrame  
PlastiClad  
Plastestrip