

### SPECIFICATIONS

Commercial	5005
EN	5005

Aluminium alloy 5005 is a medium strength alloy with very good resistance to atmospheric corrosion and very good weldability that is highly suitable for decorative anodising. PLEASE NOTE THAT WHILST ALLOY 5005 IS SUITABLE FOR ANODISING, STREAKS CAN OCCUR - IF THE FINISH YOU ARE SEEKING IS CRITICAL PLEASE SPECIFY 'SPECIAL ANODISING QUALITY' AT TIME OF ORDER.

Applications - Alloy 5005 is typically used for:  
Buildings – Roofing, Cladding, Corrugated Sheet  
Signage, Road Signs & Name Plates  
Food & Chemical Equipment  
Furniture  
Anodised Parts  
HVAC Equipment  
Packaging  
Pipe and Tube  
Can Bodies

### CHEMICAL COMPOSITION

BS EN 573-3:2009 Alloy 5005	
Element	% Present
Magnesium (Mg)	0.50 - 1.10
Iron (Fe)	0.0 - 0.70
Silicon (Si)	0.0 - 0.30
Zinc (Zn)	0.0 - 0.25
Manganese (Mn)	0.0 - 0.20
Copper (Cu)	0.0 - 0.20
Others (Total)	0.0 - 0.15
Chromium (Cr)	0.0 - 0.10
Other (Each)	0.0 - 0.05
Aluminium (Al)	Balance

### ALLOY DESIGNATIONS

### TEMPER TYPES

The most common tempers for 5005 aluminium are:

- H34 - Stabilised - A low temperature thermal treatment or heat introduced during manufacture which stabilises the mechanical properties and relieves residual internal stress, plus usually improves ductility

### SUPPLIED FORMS

- Sheet

### GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.70 g/cm <sup>3</sup>
Melting Point	655 °C
Thermal Expansion	23.5 x10 <sup>-6</sup> /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	201 W/m.K
Electrical Resistivity	52 % IACS
Electrical Resistivity	0.033 x10 <sup>-6</sup> Ω .m

### MECHANICAL PROPERTIES

BS EN 485-2:2008 Aluminium Sheet 0.2mm to 12.5mm	
Property	Value
Proof Stress	110 Min MPa
Tensile Strength	145 - 185 MPa
Hardness Brinell	47 HB

The properties above are for material in the H34 condition

## CONTACT

Address:	Please make contact directly with your local service centre, which can be found via the Locations page of our web site.
Web:	<a href="http://www.amari-ireland.com">www.amari-ireland.com</a>

## REVISION HISTORY

Datasheet Updated	18 July 2019
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