

Aluminium Alloy AA 5005 - H14 Data Sheet



DESCRIPTION

Aluminium Alloy **AA-5005** is the most suitable grade of Aluminium for anodizing. **AA-5005** is a medium strength alloy with very good resistance to atmospheric corrosion and very good weldability that makes it highly suitable for decorative anodizing. **PLEASE NOTE THAT WHILST ALLOY 5005 IS SUITABLE FOR ANODISING, STREAKS CAN OCCUR IF THE FINISH YOU ARE SEEKING IS CRITICAL.**

Merely using **AA-5005** will not give the desired end results if the same are not specially produced for the purpose of anodizing. Special **Anodizing Quality** should be used which usually come with **LASER FOIL** protection on one side of the sheet.

APPLICATIONS

AA-5005 is typically used in:

- General sheet metal works
- Manufacture of appliances and small boats
- Commercial signs, road signs & name plates
- Architectural panels and flashings
- Claddings and building facades
- Anodized Parts

Please note that Mechanical Properties shown are for **H14*** temper.

* **H14** – Most common temper is work hardened by rolling to half hard, not annealed after rolling.

CHEMICAL COMPOSITION

Element	Composition %
Magnesium (Mg)	0.50 - 1.10
Iron (Fe)	0.00 - 0.70
Silicon (Si)	0.00 - 0.30
Zinc (Zn)	0.00 - 0.25
Manganese (Mn)	0.00 - 0.20
Copper (Cu)	0.00 - 0.20
Others (Total)	0.00 - 0.15
Chromium (Cr)	0.00 - 0.10
Other (Each)	0.00 - 0.05
Aluminium (Al)	Balance

SUPPLIED FORMS

At **Dinco Trading LLC** we stock Aluminium Alloy **AA-5005** in the form of Sheets which are of Anodizing quality, specially produced for that purpose to give that even finish after anodizing.

MECHANICAL PROPERTIES

Property	Value
Proof Stress	110 Min Mpa
Tensile Strength	145-185 Mpa
Elongation at 50 mm	11 %
Hardness Brinell	47 HB

WELDABILITY

Weldability - Gas: Very Good

Weldability - Arc: Very Good

Brazability: Very Good

Weldability - Resistance: Very Good

FABRICATION

Machinability: Fair

Workability – Cold: Very Good

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.70 g/cm ³
Melting Point	655 °C
Thermal Expansion	23.5 x 10 ⁻⁶ /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	201 W/m.K
Electrical Resistivity	0.033 x 10 ⁻⁶ Ω .m

SIZES RANGE FOR AA 5005-H14

We stock Aluminium Alloy **AA-5005-H14** at our warehouses in Dubai & Sharjah. Please contact us on sales@dinco.ae with your inquiries or call: **04-3312182** or visit www.dinco.ae