

# Aluminium Alloy 3105 – F Chequered plates 5 bar pattern

## DESCRIPTION

Aluminium Alloy 3105 is an essentially 98% pure Aluminium alloy with minor additions for strength. It is used in general sheet metal works requiring greater strength than is provided by 1000 series alloys. Most commonly this alloy is stocked in Chequered plates. It is not hardenable by heat treatment. Corrosion resistance, formability and welding characteristics are excellent.

## APPLICATIONS

AA-3105 is typically used in:

- Vehicle Bodies
- Refrigerated Trucks
- Ambulances
- Cold Rooms
- Anti skid flooring
- Ship platforms
- Stair Treads

Please note that Mechanical Properties shown are for F temper

## CHEMICAL COMPOSITION

Element	Composition %
Silicon (Si)	0.20 – 0.60
Iron (Fe)	0.10 - 0.70
Copper (Cu)	0.0 - 0.30
Manganese (Mn)	0.30 - 0.80
Magnesium (Mg)	0.20 – 0.80
Chromium (Cr)	0.05 – 0.20
Zinc (Zn)	0.0 – 0.40
Titanium (Ti)	0.05 – 0.10
Others (Total)	0.0 – 0.15
Other (Each)	0.0 – 0.05
Aluminium (Al)	Balance

## SUPPLIED FORMS

At **Dinco Trading Co** we stock Aluminium Alloy 3105 in the form of Chequered Plates of 5 Bar pattern

## MECHANICAL PROPERTIES

Property	Value
Proof Stress	115 Min MPa
Tensile Strength	110 - 145 MPa
Elongation at 50 mm	20 Min %
Hardness Brinell	35 HB

## WELDABILITY

Weldability – Gas: Very Good  
Weldability – Arc: Very Good  
Brazeability: Very Good  
Weldability – Resistance: Excellent

## FABRICATION

Machinability: Acceptable  
Workability – Cold: Good

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.73 g/cm <sup>3</sup>
Melting Point	655 °C
Thermal Expansion	23.1 ×10 <sup>-6</sup> /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	160 W/m.K
Electrical Resistivity	0.034 ×10 <sup>-6</sup> Ω.m

## SIZES RANGE FOR AA3105-F

We stock Aluminium Alloy 3105 F at our warehouse in the UAE.

Please contact us on [sales@dinco.ae](mailto:sales@dinco.ae) with your inquiries or call: 06-5432452