

# Aluminium Alloy 1100 - H18

## DESCRIPTION

Aluminium Alloy 1100 is the most popular grade of Aluminium for general purpose sheet metal works where moderate strength is the requirement. AA 1100 is also known for its excellent corrosion resistance, high ductility and reflective finish.

## APPLICATIONS

AA-1100 is typically used in:

- Sign and canopy panels
- Architectural facade panels
- Digital printing panels
- Industrial applications

## CHEMICAL COMPOSITION

Element	Composition %
Silicon + Iron (Si+Fe)	1.0
Copper (Cu)	0.05 - 0.20
Manganese (Mn)	0.0 - 0.05
Zinc (Zn)	0.0 - 0.10
Others (Total)	0.15
Other (Each)	0.05
Aluminium (Al)	Balance

## WELDABILITY

Weldability - Gas:	Excellent
Weldability - Arc:	Excellent
Brazeability:	Excellent
Weldability - Resistance:	Excellent

## MECHANICAL PROPERTIES

Property	Value
Proof Stress	75 Min MPa
Tensile Strength	170 MPa
Elongation at 50 mm	5 Min %
Hardness Brinell	44 HB

## GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.8 g/cm <sup>3</sup>
Melting Point	640-654 °C
Thermal Expansion	22 x 10 <sup>-6</sup> /K
Modulus of Elasticity	69 GPa
Thermal Conductivity	220 W/m.K
Electrical Resistivity	0.029 x 10 <sup>-6</sup> Ω .m

## WELDABILITY

Machinability:	Good
Workability - Cold:	Excellent