H&D STEEL CO., LTD





Aluminium Alloy 3003 H14 Sheet/Coil

SPECIFICATIONS

Commercial	3003A
EN /ASTM	3003A / AA3003

AL 3003 is an alloy with very good corrosion resistance and moderate strength. It is not heat treatable and develops strengthening from cold working only.

Applications

Commonly used in chemical equipment, ductwork, and in general sheet metal work. 3003 is also used in the manufacture of cooking utensils, pressure vessels, builder's hardware, eyelet stock, ice cube trays, garage doors, awning slats, refrigerator panels, gas lines, gasoline tanks, heat exchangers, drawn and spun parts, and storage tanks.

CHEMICAL COMPOSITION

BS EN 573-3:2009
Alloy 3003

Element	% Present
Iron (Fe)	0.7 max
Silicon (Si)	0.6 max
Zinc (Zn)	0.1 max
Magnesium (Mg))	1 - 1.5
Manganese (Mn)	0.0 - 0.05
Copper (Cu)	0.05 - 0.2
Other (Each)	0.0 - 0.03
Other total	0.15 max
Aluminium (Al)	Balance

SUPPLIED FORMS

Plain sheet
Plain sheet with a PVC coating on one side
Tearplate
Coil

GENERIC PHYSICAL PROPERTIES

Property	Value
Density	2.73 g/cm³
Melting Point	655 °C
Thermal Expansion	23.1 x10-6 /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	160 W/m.K
Electrical Resistivity	42 % IACS

MECHANICAL PROPERTIES

BS EN 485-2:2008
Sheet
0.2mm to 6.0mm

Property	Value
Proof Stress	120 Min MPa
Tensile Strength	140 - 180 MPa
Hardness Brinell	45 HB

Properties above are for material in the H14 condition

WELDABILITY

Alloy 3003 has very good weldability

FABRICATION

Workability – Cold: Good
Machinability: Acceptable
Weldability – Gas: Very Good
Weldability – Arc: Very Good
Weldability – Resistance: Good
Brazability: Very Good
Solderability: Very Good