

# ALUMINIUM

## 1050S - H14/H24



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Aluminium 1050 is a commercially pure wrought aluminium alloy. It is often chosen for its combination of good electrical conductivity, workability, and corrosion resistance. It's a versatile material used across various industries, especially where moderate strength and high formability are desired. The terms H14 and H24 refer to the temper or hardness of the aluminium alloy.

#### KEY FEATURES

- Excellent formability
- Good machinability
- Excellent corrosion resistance
- Good weldability using various methods
- High thermal conductivity

#### CHEMICAL PROPERTIES

Aluminium (Al)	Iron (Fe)	Zinc (Zn)	Silicone (Si)	Magnesium (Mg)	Manganese (Mn)	Titanium (Ti)	Copper (Cu)
<b>99.5%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.25%</b>	<b>0.05%</b>	<b>0.05%</b>	<b>0.05%</b>	<b>0.05%</b>

#### MECHANICAL PROPERTIES

Tensile strength (N/mm <sup>2</sup> )	<b>60-95</b>
Yield strength (N/mm <sup>2</sup> )	<b>20-45</b>
Elongation (% at break)	<b>25-35</b>
Shear strength (N/mm <sup>2</sup> )	<b>70</b>
Hardness - Brinell (HB) max	<b>22-32</b>

#### PHYSICAL PROPERTIES

Density (kg/m <sup>3</sup> )	<b>271</b>	
Modulus of elasticity (Gpa)	<b>69</b>	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	<b>23.5</b>
	0-350°C (µm/m/°C)	<b>24.7</b>
	0-538°C (µm/m/°C)	<b>25.9</b>
Thermal conductivity	at 100°C (W/m.K)	<b>229</b>
	at 500°C (W/m.K)	<b>235</b>
Specific Heat 0-100°C (J/kg.K)	<b>90</b>	
Electrical conductivity (IACS %)	<b>59</b>	
Melting point (°C)	<b>650</b>	

#### MARKET SECTORS



**Food & Beverage Industry**

Packaging, foil, containers



**Electrical Industry**

Busbars, wiring, electrical components, capacitors



**Parts & Components**

Machine parts, fasteners, fixings



**Automotive Industry**

Radiator cores, engine components, trim parts



**Construction & Architecture**

Roofing sheets, building facades



**Kitchen Equipment**

Kitchen utensils, cookware, appliances