

# ALUMINIUM ALLOY: GRADE 1050A H14

## TECHNICAL DATA SHEET

### DESCRIPTION:

Aluminium Alloy 1050 is a popular grade of aluminium for general sheet metal work where moderate strength is required. It is known for its excellent corrosion resistance, high ductility and highly reflective finish. Alloy 1050 is used within JWD's powder coated, folded or face-finished cladding, fascia and capping systems.

### CHEMICAL COMPOSITION:

BS EN 573-3:2009 - Alloy 1050A

Element	% Present
Iron (Fe)	0.0 - 0.40
Silicon (Si)	0.0 - 0.25
Zinc (Zn)	0.0 - 0.07
Magnesium (Mg)	0.0 - 0.05
Titanium (Ti)	0.0 - 0.05
Manganese (Mn)	0.0 - 0.05
Copper (Cu)	0.0 - 0.05
Other (Each)	0.0 - 0.03
Aluminium (Al)	Balance

### ALLOY DESIGNATIONS:

Aluminium Alloy 1050A also corresponds to the following standard designations and specifications **but may not be a direct equivalent:**

AA1050 / S1B / A91050

### TEMPER TYPES:

Our standard temper for 1050 aluminium is H14 (work hardened by rolling to half hard, not annealed after rolling).

### PHYSICAL PROPERTIES:

Property	Value
Density	2.1 g/cm <sup>3</sup>
Melting Point	650°C
Thermal Expansion	24 x 10 <sup>-6</sup> /K
Modulus of Elasticity	71 GPa
Thermal Conductivity	222 W/m.K
Electrical Resistivity	0.0282 x10 <sup>-6</sup> Ω .m

### MECHANICAL PROPERTIES:

BS EN 485-2:2008 - Sheet 0.2mm - 6.00mm

Property	Value
Proof Stress	85 Min MPa
Tensile Strength	105 - 145 MPa
Hardness Brinell	34 HB
Elongation A	12 Min %

### ADDITIONAL PROPERTIES:

When welding Alloy 1050 to itself or an alloy from the same subgroup the recommended filler wire is 1100. For welding to alloys 5083 and 5086 or alloys from the 7XXX series, the recommend wire is 5356. For other alloys use 4043 filler wire.

Workability - Cold: Excellent      Weldability: Excellent