



HULAMIN

ROLLED PRODUCTS

3004

This is a common alloy with moderate strength.

Material can be supplied in the mill, painted and stucco embossed finishes.

Chemical Composition (in weight %)

| % | Si | Fe | Cu | Mn | Mg | Zn | Others Each | | Al |
|-----|-----|-----|------|-----|-----|------|-------------|-------|-----|
| | | | | | | | Each | Total | |
| min | - | - | - | 1.0 | 0.8 | - | | | Bal |
| max | 0.3 | 0.7 | 0.25 | 1.5 | 1.3 | 0.25 | 0.05 | 0.15 | |

Mechanical Properties (in weight %)

| Alloy and Temper | Proof (MPa) | UTS (MPa) | % Elongation | Bend Radius |
|------------------|-------------|-----------|--------------|-------------|
| | (minimum) | | (minimum) | (90° bend) |
| 3004 H14 | 180 | 220 - 265 | 3% | 1T |
| 3004 H32 | 145 | 190 - 240 | 3% | ½T |
| 3004 H34 | 170 | 220 - 265 | 4% | 1T |
| 3004 H42 | 130 | 185 - 240 | 5% | 0T |
| 3004 H44 | 180 | 210 - 265 | 4% | 1T |
| 3004 H46 | 200 | 230 - 285 | 4% | 1t |

Physical Properties

| Property Value Unit | Value | Unit |
|-----------------------|-------------------------|-------------------|
| Density at 20°C | 2.72 | g/cm ³ |
| Melting Range | 630 - 655 | °C |
| Thermal Capacity | 840 | J / kg°C |
| Thermal Conductivity | 163 | W / m°C |
| Thermal Expansion | 23.9 x 10 ⁻⁶ | / °C |
| Resistivity at 20°C | 42 | nΩm |
| Modulus of Elasticity | 69 | GPa |
| Modulus of Rigidity | 24.5 - 26.5 | GPa |

Corrosion resistance

Moderate-Good to Good corrosion resistance

Surface Treatment

Suitable for coil coating, powder and spray coating.

Formability

Has good formability. Suitable for roll forming and fabrication

Weldability

This product can be welded by MIG, TIG, LASER and high frequency methods.

Applications

- General engineering products requiring moderate to high strength.
- Building products
- Roofing and cladding products
- Signage