

SPECIFICATIONS

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| Commercial | 7075 BARE |
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A high strength aerospace aluminium alloy with, depending upon temper, Yield Strength of up to 54ksi (370 MPa) and Tensile Strength of up to 67 ksi (460 MPa)

CHEMICAL COMPOSITION

SAE AMS QQ-A-250/12
Alloy QQ A 250/12

| Element | % Present |
|----------------|-------------|
| Zinc (Zn) | 5.1 - 6.1 |
| Magnesium (Mg) | 2.1 - 2.9 |
| Copper (Cu) | 1.2 - 2 |
| Iron (Fe) | 0.5 max |
| Silicon (Si) | 0.4 max |
| Manganese (Mn) | 0.3 max |
| Chromium (Cr) | 0.18 - 0.28 |
| Titanium (Ti) | 0.2 max |
| Others (Total) | 0.15 max |
| Other (Each) | 0.05 max |
| Aluminium (Al) | Balance |

ALLOY DESIGNATIONS

Aluminium alloy QQ-A-250/12 has similarities to the following standard designations and specifications **but may not be a direct equivalent:**

AMS 4044, Alloy 7075, UNS A97075

TEMPER TYPES

Alloy QQ-A-250/12 is supplied in a wide range of tempers:

- O - Soft
- T351 - Solution heat treated then stress relieved by stretching. Equivalent to T4 condition.
- T6 - Solution heat treated and artificially aged
- T62 - Solution heat treated then artificially aged by the user
- T651 - Solution heat treated, stress relieved by stretching then artificially aged
- T6510 - Solution heat treated and stress-relieved by stretching then artificially aged with no straightening after aging
- T73 - Solution heat treated then specially artificially aged for resistance to stress corrosion

SUPPLIED FORMS

Alloy QQ-A-250/12 is supplied in sheet and plate

- Sheet
- Plate

GENERIC PHYSICAL PROPERTIES

| Property | Value |
|------------------------|---------------------------|
| Density | 2.71 g/cm ³ |
| Melting Point | 635 °C |
| Thermal Expansion | 23.5 x10 ⁻⁶ /K |
| Modulus of Elasticity | 72 GPa |
| Thermal Conductivity | 175 W/m.K |
| Electrical Resistivity | 45.5 % IACS |

MECHANICAL PROPERTIES

SAE AMS QQ-A-250/12
Sheet
Up to 12.67mm

| Property | Value |
|-------------------|-------------|
| Proof Stress | 145 Min MPa |
| Tensile Strength | 276 Min MPa |
| Elongation A50 mm | 10 Min % |

Mechanical Properties shown are for 'O' temper sheet in thicknesses 0.3mm to 12.6mm

CONTACT

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REVISION HISTORY

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|-------------------|-----------------|
| Datasheet Updated | 03 January 2014 |
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DISCLAIMER

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