

# Aluminium alloy **2050**

Al Cu3.5LiAgMn

## **SPECIFICATIONS**

USA : AA 2050 UNS : A92050

#### COMPOSITION

| Copper    | 3.50 |
|-----------|------|
| Lithium   | 1.00 |
| Silver    | 0.45 |
| Manganese | 0.35 |
| Zirconium | 0.12 |
| Magnesium | 0.04 |
| Aluminum  | Base |
|           |      |

### TYPICAL MECHANICAL PROPERTIES \_

• Thickness up to 250 mm/10"

T852 forged, closed-die forged, compressed

-Tensile test at room temperature, longitudinal direction

- UTS: >490 N/mm<sup>2</sup>

- 0.2 % Yield strength: >441 N/mm<sup>2</sup>

- Elongation (5d): >4%

- K1c (L -T direction): >22 MPa√m

Results can vary depending on thickness, refer to AMS4357 to check all the requirements.

#### **APPLICATIONS** —

- Closed-die forgings for the aerospace industry.
- This alloy has been specifically designed for structural components subject to high fatigue stress and risk of corrosion.
- This alloy allows the manufacturing of very thick parts (up to 250 mm/10")

#### CHARACTERISTICS.

- This alloy used in the T852 condition achieves a balance between mechanical properties (strength, toughness and fatigue) and stress corrosion resistance.
- Its good hardenability makes it suitable for producing very thick parts

### PHYSICAL PROPERTIES.

• Density: 2.71

• Modulus of elasticity in N/mm<sup>2</sup>: (tensile)

- at 20°C: 76.1 x 10<sup>3</sup>

#### **Contact:**

www.aubertduval.com

The data provided in this document represent typical or average values rather than maximum or minimum guaranteed values. The applications indicated for the grades described are given as guidance only in order to help the reader in his personal assessment. Please note that these do not constitute a guarantee whether implicit or explicit as to whether the grade selected is suited to specific requirements. Aubert & Duval's liability shall not under any circumstances extend to product selection or to the consequences of that selection.

