

SPECIFICATIONS

Previous AFNOR designation:

- AU4G1

European Standards:

- EN AW-2024 (Al Cu4Mg1)

UNS : A92024

COMPOSITION

Copper.....	4.4
Magnesium.....	1.5
Manganese.....	0.6
Aluminum.....	Base

TYPICAL MECHANICAL PROPERTIES

- T4 condition thickness < 75 mm forged
- Tensile test at ambient temperature, longitudinal direction
 - UTS: >420 N/mm²
 - 0.2 % Yield strength: >260 N/mm²
 - Elongation (5d): >8 %

APPLICATIONS

- Aerospace industry (structural parts and components of assemblies).
- Automotive industry
- Mould tools for plastics processing

CHARACTERISTICS

- Where parts require significant levels of hot reduction, an alloy from series 7xxx is usually preferred

HEAT TREATMENT

- Solution treatment 493°C
- Water Quench
- Age to give the mechanical properties required

PHYSICAL PROPERTIES

- Density: 2.77
- Modulus of elasticity in N/mm²:
 - at 20°C: 72.4 x 10³
- Mean coefficient of expansion in m/m.°C:
 - between (-50°C) and 20°C: 21.1 x 10⁻⁶
 - between 20°C and 100°C: 22.9 x 10⁻⁶
 - between 20°C and 200°C: 23.8 x 10⁻⁶
 - between 20°C and 300°C: 24.7 x 10⁻⁶
- Thermal conductivity in W.m/m².°C:
 - at 20°C: 120 (T4 condition)
 - at 200°C: 151 (T6 condition)
- Electrical resistivity in μΩ.cm²/cm
 - at 20°C: 5.7 (T4 condition)
 - at 20°C: 4.5 (T6 condition)
- Electrical conductivity in S/m:
 - at 20°C: >17.4 x 10⁶ (T4 condition)
 - at 20°C: >22.0 x 10⁶ (T6 condition)

Contact:

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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.