Data Sheet

Aluminium 2017A / 3.1325 / Al-Cu4Mg

Alternative Designations

EN AW-2017A | Al-Cu4Mg (ISO) | AA2017A (ANSI/AA) | H14 (BS) | A-U4G (AFNOR) | L-3120 (UNE) | A92017 (UNS) | A2017 (JIS) | CM41(17S) (CSA) | GA631 (SIS)

Key Features

Ductile • High strength • Excellent workability

Description

Aluminium 2017A / Al-Cu4Mg is an age-hardenable wrought alloy that offers a combination of high strength and good ductility. It is typically used in the aerospace industry for structural components that require a high strength-to-weight ratio. It can be heat treated to achieve a wide range of properties, depending on the desired application. For example, it can be heat treated to produce a strong, yet ductile material that is well suited for use in structural applications.

Mechanical Properties

Yield strength	135 – 240 MPa
Tensile strength	250 – 370 MPa
Elongation at break	8 – 12%
Hardness	45 – 105
Module of elasticity	72.5 GPa

Physical Properties

Density	2.8 g/cm³
Electrical conductivity	18 – 28 (MS/m)
Thermal conductivity	130 – 200 W/m · K
Specific heat capacity	860 J/kg · K

Chemical Composition

Al	Rest is Al	N	-
Bi	-	Nb	-
C	-	Ni	0.2%
Cd	-	O	-
Co	-	P	1.5%
Cr	0.1%	Pb	0.8 – 1.5%
Cu	3.5 – 4.5%	S	-
Fe	0.7%	Si	≤ 0,80%
H	-	Sn	0.2%
Mg	0.4 – 0.8%	Ti	0.2%
Mn	0.4 – 1%	V	-
Mo	-	Zn	0.8%

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.