Data Sheet

Aluminium 46100 / ADC12 / A383

Alternative Designations

AlSi11Cu3

Key Features

Corrosion resistance • Lightweight • Dimensional stability

Description

The ADC12 aluminium is more often used as an alternative for the A380 aluminium for parts that are highly intricate. It has outstanding machinability and excellent mechanical properties. It offers both value and performance through its dimensional stability and ease of casting. This material is commonly used in a large range of components such as furniture, power tools, machinery, engine brackets, valves etc.

Mechanical Properties

Yield strength	150 MPa
Tensile strength	310 MPa
Elongation at break	3.5%
Hardness	75
Module of elasticity	71 GPa

Physical Properties

Density	2.74 g/cm³
Electrical conductivity	1.33E+07 m/Ω · mm²
Coefficient of thermal expansion	21.1 K-1 · 10-6
Thermal conductivity	96.2 W/m · K
Specific heat capacity	963 J/kg · K

Chemical Composition

Al	Rest is Al	N	-
Bi	-	Nb	-
C	-	Ni	0.3%
Cd	-	O	-
Co	-	P	-
Cr	-	Pb	-
Cu	2 – 3%	S	-
Fe	1.3%	Si	9.5 – 11.5%
H	-	Sn	0.15%
Mg	0.1%	Ti	-
Mn	0.5%	V	-
Mo	-	Zn	3%

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.