Xometry

Datasheet

Aluminium ADC12

(AlSi11Cu3)

Alternative Designations

Standard	EN	ANSI/AA	JIS
Designation	AC-46100	A383.0	ADC12

Details

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.

Key Features

Corrosion resistance • Lightweight • Dimensional stability

Xometry

Datasheet ▸

Chemical Composition

Element	Cu	Mg	Fe	Sn	Ni	Zn	Mn	Si
Percentage	2–3	0.1	1.3	0.15	0.3	3	0.5	9.5–11.5

Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	150	310	3.5	75

Physical Properties

Property	Value
Density [g/cm³]	2.74
Module of elasticity [GPa]	71
Electrical conductivity [S/m]	1.33e+7
Coefficient of thermal expansion [K-1 · 10-6]	21.1
Thermal conductivity [W/m · K]	96
Specific heat capacity [J/kg · K]	963