

Data Sheet

Aluminium 46500 / A380 / Al-Si8Cu3

Alternative Designations

Key Features

AlSi8Cu3

Excellent machinability • Easy casting • Hot cracking resistance

Description

The A380 Aluminium gives an excellent combination of machinability, heat transfer and easy casting together with other properties. The fluidity of this material is excellent. It has a good resistance to hot cracking and pressure tightness. The presence of silicon makes it a bit rough. This material is applied in a variety of products such as engine mounts, electrical equipment chassis, generators and even furniture.

Mechanical Properties

Yield strength	90 – 140 MPa
Tensile strength	150 – 240 MPa
Elongation at break	1%
Hardness	60 - 80
Module of elasticity	75 GPa

Physical Properties

Density	2.75 g/cm ³
Electrical conductivity	$1.56E+07 \text{ m}/\Omega \cdot \text{mm}^2$
Coefficient of thermal expan	nsion 21.2 K-1 · 10-6
Thermal conductivity	110 – 130 W/m · K
Specific heat capacity	880 J/kg · K

Al	Rest is Al	Ν	-
Bi	-	Nb	-
С	-	Ni	0.35%
Cd	-	0	-
Со	-	Р	-
Cr	-	Pb	0.25%
Cu	2 - 3.5%	S	-
Fe	0.8%	Si	7.5 – 9.5%
Н	-	Sn	0.15%
Mg	0.05 - 0.55%	Ті	0.25%
Mn	0.15 – 1.65%	V	-
Мо	-	Zn	1.2%

Reference

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



Chemical Composition