

AlSi7Mg0.6

SPECIFICATIONS

EU EN AC-42 200

FR AS7G06

USA UNS357.0

MATERIAL DESCRIPTION

- Aluminium alloy with low density and good corrosion resistance, combined with good mechanical, thermal, and electrical properties.

COMPOSITION

weight %

Al	—	Balance
Si	—	7
Mg	—	0,6

APPLICATIONS



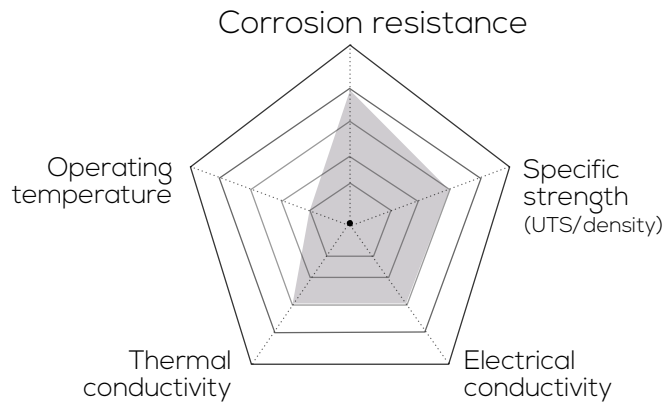
MATERIAL SHEET

Typical mechanical properties

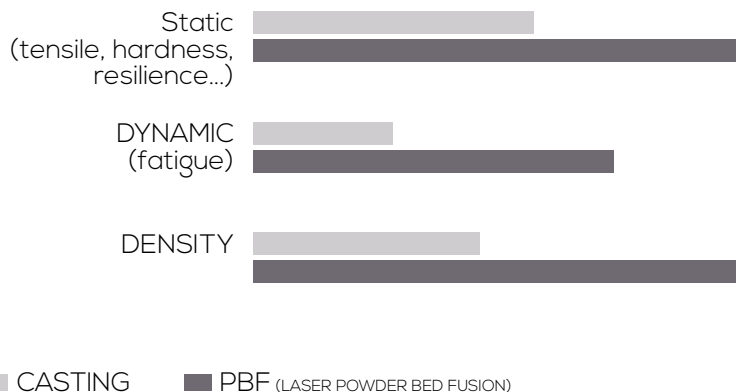
The data provided in this document represent typical but not guaranteed values.

	On the FormUp®
Ultimate Tensile Strength UTS, ksi	62
Yield Strength YS, ksi	36
Elongation at break E 5D, %	14

Physical properties:



Qualitative comparison according to processes



Technical data

PARTICLES SIZE :
Available in different granulometries.

SUPPLIERS :
AddUp will provide support with your choice of powder supplier.

Applications, in detail



AUTOMOTIVE

Engine part

A classical use of aluminium alloys are in car engine parts.

The low weight of AlSi7Mg0.6 coupled with additive manufacturing process possibilities allow for complex parts like cylinder heads to be built.



AERONAUTIC

Sub-assembly

AlSi7Mg0.6 is a light-weight commonly used in aeronautics applications.

Its low weight combined with design benefits of using additive manufacturing (i.e. increased geometric complexities and topology optimization) can greatly increase the range of use applications.



POWER GENERATION

Heat Exchanger

AlSi7Mg0.6 can be used to built heat exchangers because of its excellent thermal conductivity and ability to be easily printed. This increases the geometric complexities as well as surface area, which results in an overall decrease of subsequent parts assembly.