

# Aluminum (AlSi10Mg) - Specifications

## Description

This material offers good strength, hardness and dynamic properties and hence also used for parts subject to high loads. This material is ideal for applications which require a combination of good thermal properties and low weight. It is typically used to cast parts with thin walls and complex geometry.

## Composition\*

Element	Typical Values (wt-%)
Al	Balance
Si	9.0 – 11.0
Fe	≤ 0.55
Cu	≤ 0.05
Mn	≤ 0.45
Mg	0.2 - 0.45
Zn	≤ 0.10
Ti	≤ 0.15

## Mechanical Properties\*

	Stress Relieved – 35 C platform	HIP + T6 Heat Treat
Ultimate tensile strength	55 ksi	41 ksi
0.2 % Yield strength	34 ksi	32 ksi
Elongation	6.9 %	14.1 %
Modulus of elasticity	9.91 msi	10.29 msi
Hardness, Rockwell B	64	-
Reduction of area	10.2 %	20.7 %

\* The properties may vary according to application and operation conditions. This information is for reference only. Specifications are subject to change without notice.

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1949 Palomar Oaks Way, Suite 150, Carlsbad, CA 92011  
[contactus@arrk.com](mailto:contactus@arrk.com) (800) 735-2775

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