

# Data Sheet: Aluminium 3.2315

(Al-Si1Mg)

## Alternative Designations

Standard	EN	ANSI/AA	UNS	AFNOR	SIS	UNE
Designation	EN-AW6082	AA6082	A96082	A-SGM0,7	4212	L-3453

## Details

Typically formed by rolling and extrusion, this alloy has medium strength with very good weldability and thermal conductivity. It has high stress corrosion cracking resistance. It has a tensile strength that ranges from 140 – 330MPa. It is heavily employed in offshore construction and containers.

## Key Features

Good thermal conductivity • Good weldability • High stress corrosion cracking resistance

## Chemical Composition

Element	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	
Percentage	0.7 – 1.3	0.5	0.10	0.40 – 1.0	0.6 – 1.2	0.25	0.20	0.10	

## Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	110	205	14	65

## Physical Properties

Property	Value
Density [g/cm <sup>3</sup> ]	<b>2.7</b>
Module of elasticity [GPa]	<b>70</b>
Electrical conductivity [m/Ω · mm <sup>2</sup> ]	<b>24 - 32</b>
Coefficient of thermal expansion [K <sup>-1</sup> · 10 <sup>-6</sup> ]	<b>23.4</b>
Thermal conductivity [W/m · K]	<b>170 - 220</b>
Specific heat capacity [J/kg · K]	<b>896</b>

## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://www.materialdatacenter.com) for further information on this material.