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Aluminium 3.2315

(Al-SiMg)

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

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Physical Properties

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

