



Steel 1.0117 / S235J2 / S235J2G4

Alternative Designations

A36 (ASTM) | 10025-2 (EN) | G3106 (JIS)

Key Features

Excellent workability • Non-alloy • Good weldability and high strength

Description

S235J2 / 1.0117 is a European standard steel manufactured from non-alloy quality hot rolled material. It is intended for use in construction and general engineering applications. This material is widely used owing to its excellent strength properties and weldability. This steel is also available in a range of surface finishes, making it suitable for both internal and external applications.

Mechanical Properties

Yield strength	195 – 215 MPa
Tensile strength	350 – 510 MPa
Elongation at break	22 – 26%
Hardness	104 – 154
Module of elasticity	210 GPa

Physical Properties

Density	7.8 g/cm ³
Thermal conductivity	40 – 45 W/m · K
Specific heat capacity	460 – 480 J/kg · K

Chemical Composition

Al	-	N	0.012%
Bi	-	Nb	-
C	0.17%	Ni	-
Cd	-	O	-
Co	-	P	0.03%
Cr	-	Pb	-
Cu	0.55%	S	0.03%
Fe	Rest is Fe	Si	-
H	-	Sn	-
Mg	-	Ti	-
Mn	1.4%	V	-
Mo	-	Zn	-

Reference

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