

AISI 1018 is a commonly used low-carbon mild steel alloy. It is part of the carbon steel family and has a carbon content of approximately 0.18%. AISI 1018 is known for its excellent machinability, weldability, and relatively low cost. It is often chosen for applications that require good strength, ductility, and ease of fabrication.

Chemical Composition

Element	Maximum Unless Range is Specified
Carbon	.14-.20
Phosphorus	.040
Sulfur	.050
Manganese	.60-.90
Iron	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.284
Specific Heat,BTU/lb-°F (32–212°F)	0.116
Thermal Conductivity ,BTU-in/hr-ft ² -°F	360
Electrical Resistivity, Micohm-in at 32°F	15.9
Modules of Elasticity ,ksi	29,000

Mechanical Properties

Property	Maximum Unless Range is Specified
Ultimate Tensile Strength,ksi	63.8
Yield Strength,ksi	53.7
Elongation at Break	15%
Hardness, Rockwell B	71

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.