Alloy Steel 4140

Alloy Steel 4140, also known as AISI 4140 or SCM440, is a versatile low-alloy steel that contains chromium, molybdenum, and manganese. It is widely used in various industries due to its excellent strength, toughness, and wear resistance properties.

Chemical Composition

Element	Maximum Unless Range is Specified
Silicon	.15-0.30
Carbon	.38-.43
Phosphorus	.035
Sulfur	.040
Manganese	.75-1.00
Chromium	.80-1.10
Molybdenum	.15-.25
Iron	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in3	0.284
Coefficient of thermal expansion µin/in°F	6.78
Thermal Conductivity ,BTU hr.ft2.°F	296
Melting Point (Deg°F)	2580
Modules of Elasticity ,ksi	27,557-30,458

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	95
Yield Strength,ksi	60
Elongation at Break	25.7%
Hardness, Rockwell B	92

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.