Alloy Steel 4340

Alloy Steel 4340, also known as AISI 4340, is a nickel-chromium-molybdenum alloy steel that offers high strength, toughness, and fatigue resistance. It is commonly used in applications that require excellent strength-to-weight ratio, such as aerospace, automotive, and oil and gas industries.

Chemical Composition

Element	Maximum Unless Range is Specified
Silicon	.15-0.30
Carbon	.37-.43
Phosphorus	.035
Sulfur	.040
Manganese	.60-.80
Chromium	.70-.90
Molybdenum	.20-.30
Nickel	1.65-2.00
Iron	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in3	0.284
Coefficient of thermal expansion µin/in°F	6.83
Thermal Conductivity ,BTU hr.ft2.°F	309
Melting Point (Deg°F)	2600
Modules of Elasticity ,ksi	27,557-30,458

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	108
Yield Strength,ksi	68.2
Elongation at Break	22%
Hardness, Rockwell B	95

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.