

**Key Features**

- High strength
- High corrosion resistance

**Common Applications**

- Piston pins, bearings, ordnance, gears, dies
- Pressure vessels Transmissions, gears, and shafts
- Landing gear
- Hydraulic systems
- Automotive frames
- Fasteners

**Material Description**

Steel 4340 is a high-strength, low-alloy steel that offers exceptional toughness, high fatigue strength, and excellent hardenability. Steel 4340 can be heat-treated to achieve a very high level of strength and toughness, making it suitable for critical components in demanding applications. Common uses include aerospace components, automotive crankshafts, connecting rods, and high-performance gears. Its combination of high strength, toughness, and good machinability makes it ideal for parts subjected to extreme stress and heavy loads.

**Chemical Composition (%)**

	C	Cr	Fe	Mn	Mo	Ni	P	Si	S		
Min.	0.37	0.70	95.195	0.60	0.20	1.65		0.15			
Max.	0.43	0.90	96.33	0.80	0.30	2.0	0.035	0.30	0.040		

**Mechanical Properties**

Ultimate Tensile Strength	108,000 PSI
Tensile Yield Strength	68,200 PSI
Hardness	Rockwell B95
Elongation at Break	22%

**Physical Properties**

Density	0.284 lb/in <sup>3</sup> (7.85 g/cm <sup>3</sup> )
Thermal Conductivity	44.5W/m.K
Modulus of Elasticity	27,800 KSI (192 GPa)
Melting Point	2,600°F (1,427 °C)

**Technical Assistance**

Our knowledgeable staff, supported by our in-house team of expert metallurgists and engineers, is ready to assist you with any technical inquiries.

**InstaVoxel™ – On-Demand Manufacturing Expert**

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