



4145 H-Mod

Round Bar

Chemical Composition* – % Weight

C	Mn	P	S	Si	Ni	Cr	Mo
.49	1.30	0.35	.04	.35	1.00	1.20	.45

Physical Properties – Typical Values at 68°F

BHN Hardness	Tensile Strength	Yield Strength	Elongation in 2"	Reduction of Area %	Charpy Test Toughness Index
287 – 332	140 ksi	125 ksi	14%	45	40 ft. lbs. @ RT

- * Quenched and tempered for uniformity in strength, shock resistance, ductility and hardness.
- * One of the most versatile machinery steels.
- * Furnished in a hot rolled state.
- * Minimum: 125 ksi yield.
- * Hardness: 287 – 332 BHN.
- * Mechanical properties at 1" below surface.

SCOPE

Rolled and rough turned chromium, molybdenum with maximum 1.00 nickel alloy steel bars, 4" to 11 .1" diameter, quenched and tempered for uniformity in strength, shock resistance, ductility and hardness; is versatile as downhole motor parts, connecting rods, drill collars, tool joints, shafts, and gears.

METALLURGICAL CONDITIONS

Grain Size: The austenitic grain size shall be 6-9 as defined in ASTM E-112.

Note: The data contained in this document is accurate at time of printing, and intended for use as a general guide.

* Typical maximum values. Mill certifications are available upon request.