

Premium Quality H-13 Data Sheet

*Chemical Composition (Nominal Values Weight %)

Si	C	Cr	Mn	V	Mo
1.0	0.40	5.3	0.4	0.9	1.3

*Composition shown is nominal. Actual chemical composition may vary.

Characteristics

Premium Quality H-13 is a hot work steel used in a variety of applications such as plastic molding, die casting, and hot forging/forming.

Applications

Premium Quality H-13 is suitable for use in die casting, die holders, hot forging/forming dies and rolls.

Heat Treatment of Premium Quality H-13

Annealing

Premium Quality H-13 should be heated thoroughly to 1600°F in an atmosphere controlled furnace. Hold 2 hours, furnace cool at 25°F per/hr to 1100°F, then air cool to room temperature. A maximum hardness of 235 BHN should result.

Hardening

Preheat: 1400-1500°F, equalize temperature, hold 2 hours.
 Austenitize: 1850-1925°F, equalize temperature, hold 30 minutes.
 Quench: Positive pressure (2 bar minimum) quench to below 125°F.
 Temper: Double temper at 1000-1200°F, equalize temperature, hold 2 hours minimum. Double temper recommended.
 Typical hardness: 42-50 HRC.

Stress Relieving

Annealed material: Heat to 1000-1200°F, hold 2 hours, then air cool.
 Hardened material: Heat to 25-50°F below heat treat tempering temperature, hold 2 hours, then air cool.

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Hardened material: Heat to 25-50°F below heat treat tempering temperature, hold 2 hours, then air cool.