

## A-2 Data Sheet

### \*Chemical Composition (Nominal Values Weight %)

<u>C</u>	<u>Si</u>	<u>Cr</u>	<u>V</u>	<u>Mn</u>	<u>Mo</u>
1.0	0.3	5.3	0.2	0.6	1.1

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

### Characteristics

**A-2** is a cold work tool steel which provides a good combination of moderate toughness and moderate wear resistance.

### Applications

**A-2** is suitable for use in die sections, shear blades and punches.

### Heat Treatment of A-2

#### Annealing

A-2 should be heated thoroughly to 1550°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 215 BHN should result.

#### Hardening

Preheat: 1200-1300°F, equalize temperature, hold 2 hours.  
Austenitize: 1700-1750°F, equalize temperature, hold 30 minutes.  
Quench: Positive pressure (2 bar minimum) quench to below 125°F.  
Temper: Double temper at 400-800°F, equalize temperature, hold 2 hours minimum. Double temper recommended.  
Typical hardness: 58-60 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.

#### EDM

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