

## Basic Heat Treatment for Tool Steels

Grade	Pre-heat Temperature °F	Austenitizing Temperature °F	Quench	Tempering Temperature °F	Annealing Temperature °F	Typical Annealed Hardness (BHN)
O1	1250-1350	1450-1500	Oil	400-500	1400-1450	185-212
L6	1200-1300	1500-1550	Oil	400-600	13575-1425	185-235
S5	1250-1350	1550-1600	Oil	400-600	1400-1450	195-229
S7	1350-1450	1725-1775	Air	400-600	1500-1550	185-229
A2	1350-1450	1750-1800	Air	400-600	1550-1600	200-248
D2	1400-1450	1825-1850	Air	400-600	1550-1600	215-255
SB Wear	1500-1550	1875-2050	Air	975-1050	1550-1600	220-255
PSB 22	1500-1550	1850-1950	Air	975-1050	1550-1600	215-255
PSB 27	1500-1550	1825-1875	Air	400-600	1550-1600	215-255
PD #1	1500-1550	1875-2050	Air	1000-1050	1550-1600	215-255
PM A11	1500-1550	1950-2150	Air	1000-1050	1600-1650	245-275
PM 9M2	1500-1550	1950-2050	Air	1000-1050	1600-1650	225-255
PM M4	1500-1550	2050-2200	Air	1000-1075	1550-1600	215-245
PM T15	1500-1550	1950-2200	Air	1000-1075	1600-1650	225-255
52100	1500-1550	2150-2250	Air	1000-1075	1600-1650	245-275
	1200-1250	1500-1550	Oil	400-600	1400-1450	185-215

**Note: Temperatures are for general reference only. Reference complete data sheet for detailed information.**