TABLE 4 *Continued*

Type	Condition	Suggested Hardening and/or Aging Treatment[B,C,D]			Applicable Thickness, in. & Test Direction[E]	Tensile Strength, min		Yield Strength, min[F]		Elongation in 2 in. [50 mm] or 4D, min %	Reduction of area, min, %	Hardness[G]		Impact Charpy-V, min	
		Temp, °F [°C]	Time, h	Quench[H]		ksi	[MPa]	ksi	[MPa]			Rockwell C, min	Brinell, min	ft·lbf	J
S46500	Condition A + CW + H900	900 [482]	4.0	air or oil	Up to 1 in. incl [25.4 mm] (L)	255	[1755]	235	[1620]	7	44	49	455	. . .	. . .
	Condition A + CW + H950	950 [510]	4.0	air or oil	Up to 1 in. incl [25.4 mm] (L)	250	[1720]	230	[1585]	8	45	48	450	. . .	. . .
	Condition A + CW + H1000	1000 [540]	4.0	air or oil	Up to 1 in. incl [25.4 mm] (L)	235	[1620]	215	[1480]	9	50	46	435	. . .	. . .
	Condition A + CW + H1025	1025 [560]	4.0	air or oil	Up to 1 in. incl [25.4 mm] (L)	225	[1550]	205	[1410]	10	50	45	425	. . .	. . .
	Condition A + CW + H1050	1050 [565]	4.0	air or oil	Up to 1 in. incl [25.4 mm] (L)	210	[1450]	190	[1310]	10	50	44	415	. . .	. . .
S46910	CW ½ hard + aging	890 [475]	1.0	Air cool	. . .	245	[1690]	218	[1500]	6	. . .	48	456	. . .	. . .
	CW full hard + aging	890 [475]	1.0	Air cool	. . .	320	[2205]	290	[2005]	2	. . .	55	561	. . .	. . .
S10120	H950	950 [510]	4.0	air or oil	Up to 12 in. incl [300 mm] (L)	203	[1400]	189	[1300]	10	50	43	401	. . .	. . .
					Up to 12 in. incl [300 mm] (T)					9	45				
S11100	H900	900 [480]	[J]	air or oil or water	Up to 12 in. incl [300 mm] (L)	247	[1700]	231	[1590]	11	43	47	448	. . .	. . .
	H950	950 [510]	8.0	air or oil or water	Up to 12 in. incl [300 mm] (L)	240	[1655]	220	[1517]	10	45	47	448	. . .	. . .
					Up to 12 in. incl [300 mm] (T)					8	35				
	H1000	1000 [540]	8.0	air or oil or water	Up to 12 in. incl [300 mm] (L)	220	[1517]	200	[1378]	10	50	45	426	. . .	. . .
					Up to 12 in. incl [300 mm] (T)					10	40				

[A] See 7.1.
[B] Time refers to minimum time material is at temperature and may be extended to obtain required ductility properties.
[C] Unless otherwise noted, temperatures shown are suggested temperatures and may be varied to obtain required tensile properties.
[D] Intermediate temperatures must meet the ductility requirements of the next highest suggested hardening or aging temperature, or both. Example: Type 630 at 1050 °F [565 °C] must have 13 % elongation and 45 % reduction, same as for age hardening at 1075 °F [580 °C].
[E] (L) - Longitudinal axis of specimen parallel to direction of grain flow during rolling or forging. (T) - Transverse axis of specimen perpendicular to direction of grain flow during rolling or forging.
[F] See 7.3.
[G] Either Rockwell C hardness or Brinell is permissible. On sizes ½ in. (12.70 mm) and smaller, Rockwell C is preferred.
[H] When air cooling is specified, gases other than air may be used.
[I] Refer to Table 2 for details on equalize and over temper heat treatment.
[J] For the H900 condition of S11100, the duration set up between 4 and 8 hours.