



Wickeder Steel Company

Quality: We Make It Our Business

STANDARD HARDNESS / TENSILE STRENGTH RANGES

HARDENED AND TEMPERED

Inch/mm	Tensile Strength						Approximate Rockwell		
	psi x 1000			N/mm ²			Hardness C		
	Low	Middle	High	Low	Middle	High	Low	Middle	High
0.008 - < 0.010 0.20 - < 0.25	250	280	315	1720	1930	2170	50.5	54.5	58.0
0.010 - < 0.012 0.25 - < 0.30	245	275	310	1690	1900	2140	50.0	53.5	57.0
0.012 - < 0.015 0.30 - < 0.38	235	265	300	1620	1830	2070	48.5	52.0	56.0
0.015 - < 0.020 0.38 - < 0.51	220	250	285	1520	1720	1970	46.0	50.5	55.0
0.020 - < 0.030 0.51 - < 0.76	205	235	275	1410	1620	1900	44.0	48.5	53.0
0.030 - < 0.040 0.76 - < 1.02	195	225	270	1350	1550	1850	42.0	46.5	52.0
0.040 - < 0.050 1.02 - < 1.27	195	225	260	1350	1550	1800	42.0	46.5	51.5
0.050 - < 0.060 1.27 - < 1.52	195	225	255	1350	1550	1750	42.0	46.5	50.5
0.060 - < 0.080 1.52 - < 2.03	185	215	245	1280	1500	1700	40.0	45.5	49.5
0.080 - < 0.100 2.03 - < 2.54	180	200	230	1240	1400	1600	39.0	43.0	48.0
0.100 - < 0.125 2.54 - < 3.18	175	195	225	1210	1350	1550	38.0	42.0	46.5

** Standard tensile strength tolerance for all thicknesses is ± 7500 psi (± 50 N/mm²).*

**Variations from these standards can be developed for individual applications.*

** Good correlations exist between hardness and tensile strength (UTS) but they are not exact. This information should be used for reference only.*