

STEEL HARDNESS & TENSILE COMPARISONS

BRINELL DIA OF IMPRESSION	BRINELL HARDNESS NUMBER	VICKERS HARDNESS NUMBER	ROCKWELL C SCALE HARDNESS NUMBER	TENSILE STRENGTH	TENSILE STRENGTH	TENSILE STRENGTH
mm	HB	HV	HRC	ton f/in ²	KG f/mm ²	N/mm ²
2.50	(601)	640	57	---	---	---
2.55	(578)	615	56	---	---	---
2.60	(555)	591	54.5	---	---	---
2.65	(534)	569	53.5	---	---	---
2.70	(514)	547	52	---	---	---
2.75	(495)	528	51	---	---	---
2.80	(477)	508	49.5	---	---	---
2.85	(461)	491	48.5	101	160	1569
2.90	444	474	47	98	155	1520
2.95	429	455	45.5	95	150	1471
3.00	415	440	44.5	92	145	1422
3.05	401	425	43	88	139	1363
3.10	388	410	42	85	134	1314
3.15	375	396	40.5	82	129	1265
3.20	363	383	39	80	126	1236
3.25	352	372	38	77	121	1187
3.30	341	360	36.5	75	118	1157
3.35	331	350	35.5	73	114	1118
3.40	321	339	34.5	71	111	1089
3.45	311	328	33	68	107	1049
3.50	302	319	32	66	104	1020
3.55	293	309	31	64	101	990
3.60	285	301	30	63	99	971
3.65	277	292	29	61	96	941
3.70	269	284	27.5	59	93	912
3.75	262	276	26.5	58	91	892
3.80	255	269	25.5	56	89	873
3.85	248	261	24	55	87	853
3.90	241	253	23	53	84	824
3.95	235	247	22	51	81	794
4.00	229	241	20.5	50	79	775
4.05	223	235	---	49	77	755
4.10	217	228	---	48	76	745
4.15	212	223	---	46	73	716
4.20	207	218	---	45	71	696
4.30	197	208	---	43	68	667
4.40	187	197	---	41	65	637
4.50	179	189	---	39	62	608
4.60	170	179	---	36	57	559
4.70	163	172	---	35	55	539
4.80	156	165	---	34	54	530
4.90	149	157	---	32	51	500
5.00	143	150	---	31	49	481
5.10	137	144	---	31	49	481
5.20	131	138	---	30	47	461
5.30	126	133	---	29	46	451
5.40	121	127	---	28	44	431
5.50	116	122	---	27	43	422
5.60	111	117	---	26	41	402
5.70	107	113	---	25	39	382
5.80	103	108	---	24	38	373

The figures in parenthesis require a 'modified' Brinell test, i.e a tungsten carbide ball is required where BH value exceeds 450 HB to HV and HV to HRC conversions are based on A.S.T.M. E. 140

VALUES AND EQUIVALENT ARE APPROXIMATE

Every care has been taken in the preparation of this technical data, however, no liability can be accepted for any errors or the consequences arising from such errors.