

**BRINELL HARDNESS NUMBERS & TENSILE STRENGTH EQUIVALENTS  
WITH CORRESPONDING HV & HRC VALUES**

Brinell Ø of Impression mm	Brinell Hardness # HB	Vickers Hardness # HV	Rockwell C Hardness HRC	Equiv. Rm tonf/in <sup>2</sup>	Equiv. Rm kgf/in <sup>2</sup>	Equiv. Rm N/mm <sup>2</sup>
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 the HB value exceeds 450. HB to HV and HV to HRC conversions are based on ASTM E140