

# HARDNESS CONVERSION TABLE

ROCKWELL														BRINELL			VICKERS		TENSILE STRENGTH (kg/mm <sup>2</sup> )		SHORE SCLEROSCOPE	
Diamond Cone 60 kg	1/16" ball 100 kg	Diamond cone 150 kg	Diamond cone 100 kg	1/8" ball 100 kg	1/16" ball 60 kg	1/16" ball 150 kg	1/8" ball 60 kg	1/8" ball 150 kg	SUPERFICIAL						ball 10 1000	ball 2.5 62.5	ball 2.5 187.5	Diamond pyramid Material	Non-ferrous Steels	Alloyed Steels		
									Diamond cone			1 / 16" ball										15 kg
HRA	HRB	HRC	HRD	HRE	HRF	HRG	HRH	HRK	15 N	30N	45N	15T	30T	45T	HB 10	HB 30	HB 10	HV	0.36	0.34		
86.5	70	78.5							94	86	77.5							1076				101
86	69	78							93.5	85	76.5							1044			99	
85.5	68	77							93	84.5	75.5							915			97	
85	67	76							92.5	83	74.5							903			95	
84.5	66	75.5							92	82	72							870			92	
84	65	74.5							91.8	81	71							840			91	
83.5	64	74							91.5	80	70							800			88	
83	63	73							90.5	78.5	68.5							775			87	
82.5	62	72.5							89.5	76.5	65.5							762			86	
81.5	61	71.5							89	75	63							720			83	
81	60	71							88.5	74	62						654	654	680	214	202	76
80.5	59	70							88	73	61						634	634	660	208	196	75
80	58	69							87.5	72	59.5						615	615	640	202	190	74
79.5	57	68.5							87	71	58.5						595	595	636	214	202	76
79	56	67.5							86.5	70.5	57.5						577	577	617	208	196	75
78.5	55	67							86	69.5	56						560	560	608	202	190	74
78	54	66							85.5	68.5	55						543	543	580	195	185	72
77.5	53	65.5							85	67.5	54						522	522	562	188	178	71
77	52	64.5							84.5	66.5	53.5						500	500	545	180	170	70
76.5	51	64							84	66	51.5						487	487	528	175	166	68
76	50	63.5							83.5	65	50						477	477	515	171	162	67
75.5	49	62							83	64	49						464	464	498	167	158	66
75	48	61.5							82.5	63	48						451	451	485	162	153	64
74.5	47	60.5							82	62	46.5						442	442	471	159	150	63
74	46	60							81.5	61.5	45.5						432	432	458	156	147	62
73.5	45	59.5							81	60.5	44.5						423	423	446	152	143	60
72.5	44	58.5							80.5	59.5	43.5						409	409	434	147	139	58
72	43	57.5							80	58.5	42						393	393	422	144	136	57
71.5	42	57							79.5	57.5	41						381	381	412	141	133	56
71	41	56							79	56.5	39.5						370	370	400	138	130	54
70.5	40	55.5							78.5	55.5	38.5						360	360	390	135	128	52
70	39	54.5							78	54.5	37						350	350	380	132	125	50
69.5	38	54							77.5	53.5	36						341	341	370	129	122	48
69	37	53							77	53	35						333	333	360	127	120	46
68.5	36	52.5							76.5	52	33.5						325	325	350	125	118	44
68	35	51.5							76	51.5	32.5						318	318	340	123	116	42
67.5	34	50.5							75.5	51	31.5						310	310	332	121	114	40
67	33	50							75	50.5	30.5						304	304	325	119	112	38
66.5	32	49.5							74.5	49.5	29.5						299	299	318	117	110	36
66	31	48.5							74	48.5	29						294	294	312	115	108	34
65.5	30	47.5							73.5	47.5	28						289	289	306	113	106	32
65	29	47							73	46.5	27						284	284	300	111	104	30
64.5	28	46							72.5	45.5	26						279	279	294	109	99	28
64	27	45.5							72	44.5	25						274	274	288	107	94	26
63.5	26	44.5							71.5	43.5	24						269	269	282	105	89	24
63	25	44							71	42.5	23						264	264	276	103	84	22
62.5	24	43							70.5	41.5	22						259	259	270	101	79	20
62	23	42.5							70	40.5	21						254	254	264	99	74	18
61.5	22	41.5							69.5	39.5	20						249	249	258	97	69	16
61	21	41							69	38.5	19.5						244	244	252	95	64	14
60.5	20	40							68.5	37.5	18.5						239	239	246	93	59	12
59.5	19	39.5							68	36.5	17.5						234	234	240	91	54	10
59	18	39							67.5	35.5	16.5						229	229	234	89	49	8
58.5	17	38.5							67	34.5	15.5						224	224	228	87	44	6
58	16	38							66.5	33.5	14.5						219	219	222	85	39	4
57.5	15	37.5							66	32.5	13.5						214	214	216	83	34	2
57	14	37							65.5	31.5	12.5						209	209	210	81	29	0
56.5	13	36.5							65	30.5	11.5						204	204	204	79	24	-1
56	12	36							64.5	29.5	10.5						199	199	198	77	19	-2
55.5	11	35.5							64	28.5	9.5						194	194	192	75	14	-3
55	10	35							63.5	27.5	8.5						189	189	186	73	9	-4
54.5	9	34.5							63	26.5	7.5						184	184	182	71	4	-5
54	8	34							62.5	25.5	6.5						179	179	178	69	-1	-6
53.5	7	33.5							62	24.5	5.5						174	174	174	67	-6	-7
53	6	33							61.5	23.5	4.5						169	169	170	65	-11	-8
52.5	5	32.5							61	22.5	3.5						164	164	166	63	-16	-9
52	4	32							60.5	21.5	2.5						159	159	162	61	-21	-10
51.5	3	31.5							60	20.5	1.5						154	154	156	59	-26	-11
51	2	31							59.5	19.5	0.5						149	149	152	57	-31	-12
50.5	1	30.5							59	18.5	-0.5						144	144	146	55	-36	-13
50	0	30							58.5	17.5	-1.5						139	139	142	53	-41	-14
49.5	-1	29.5							58	16.5	-2.5						134	134	136	51	-46	-15
49	-2	29							57.5	15.5	-3.5						129	129	132	49	-51	-16
48.5	-3	28.5							57	14.5	-4.5						124	124	126	47	-56	-17
48	-4	28							56.5	13.5	-5.5						119	119	122	45	-61	-18
47.5	-5	27.5							56	12.5	-6.5						114	114	116	43	-66	-19
47	-6	27							55.5	11.5	-7.5						109	109	112	41	-71	-20
46.5	-7	26.5							55	10.5	-8.5						104	104	106	39	-76	-21
46	-8	26							54.5	9.5	-9.5						99	99	102	37	-81	-22
45.5	-9	25.5							54	8.5	-10.5						94	94	96	35	-86	-23
45	-10	25							53.5	7.5	-11.5						89	89	92	33	-91	-24
44.5	-11	24.5							53	6.5	-12.5						84	84	86	31	-96	-25
44	-12	24							52.5	5.5	-13.5						79	79				