



## Tabela de equivalência de dureza - SAE J417 - Tabela 1

Rockwell (HRB)	Rockwell Superficial			Vickers (HV)	LR Aprox. N/mm <sup>2</sup>
	15 T	30 T	45 T		
100	93	82	72	240	846
99	92.5	81.5	71	234	826
98	-	81	70	228	804
97	92	80.5	69	222	783
96	-	80	68	216	762
95	91.5	79	67	210	741
94	-	78.5	66	205	723
93	91	78	65.5	200	705
92	90.5	77.5	64.5	195	688
91	-	77	63.5	190	670
90	90	76	62.5	185	652
89	89.5	75.5	61.5	180	635
88	-	75	60.5	176	621
87	89	74.5	59.5	172	606
86	88.5	74	58.5	169	596
85	-	73.5	58	165	582
84	88	73	57	162	571
83	87.5	72	56	159	560
82	-	71.5	55	156	550
81	87	71	54	153	540
80	86.5	70	53	150	529
79	-	69.5	52	147	518
78	86	69	51	144	507
77	85.5	68	50	141	498
76	-	67.5	49	139	490
75	85	67	48.5	137	483
74	-	66.7	47.5	135	476
73	84.5	65.5	46.5	132	465
72	84	65	45.5	130	458
71	-	64	44.5	127	448
70	83.5	63.5	43.5	125	441
69	83	62.5	42.5	123	434
68	-	62	41.5	121	427
67	82.5	61.5	40.5	119	419
66	82	60.5	39.5	117	412
65	-	60	38.5	116	409
64	81.5	59.5	37.5	114	402
63	81	58.5	36.5	112	395
62	-	58	35.5	110	388
61	80.5	57	34.5	108	381
60	-	56.5	33.5	107	377
59	80	56	32	106	374
58	79.5	55	31	104	366
57	-	54.5	30	103	362
56	79	54	29	101	356
55	78.5	53	28	100	353
54	-	52.5	27	98	345
53	78	51.5	26	96	339
52	77.5	51	25	94	331
51	-	50.5	24	92	324
50	77	49.5	23	90	317
49	76.5	49	22	88	310
48	-	48.5	20.5	86	303
47	76	47.5	19.5	85	300
46	75.5	47	18.5	84	296
45	-	46	17.5	83	293

## Tabela de equivalência de dureza - SAE J417 - Tabela 2

HRC	Rockwell			Rockwell Superficial			Vickers (HV)	Brin. (HB)	LR Aprox. N/mm <sup>2</sup>
	HRB	HRA	15N	30N	45N				
60	-	81.2	90.2	77.5	66.6	697	613	-	
59	-	80.7	89.8	76.6	65.5	674	599	-	
58	-	79.6	88.9	74.8	63.2	633	575	-	
57	-	79.6	88.9	74.8	63.2	633	575	-	
56	-	79	88.3	73.9	62	613	561	-	
55	-	78.5	87.9	73	60.9	595	546	2075	
54	-	78	87.4	72	59.8	577	534	2013	
53	-	77.4	86.9	71.2	58.6	560	519	1951	
52	-	76.8	86.4	70.2	57.4	544	508	1882	
51	-	76.3	85.9	69.4	56.1	528	494	1820	
50	-	75.9	85.5	68.5	55	513	401	1758	
49	-	75.2	85	67.6	53.8	498	469	1696	
48	-	74.7	84.5	66.7	52.5	484	455	1634	
47	-	74.1	83.9	65	51.4	471	443	1579	
46	-	73.6	83.5	64.8	50.3	458	432	1531	
45	-	73.1	83	64	49	446	421	1482	
44	-	72.5	82.5	63.1	47.8	434	409	1439	
43	-	72	82	62.2	46.7	423	400	1386	
42	-	71.5	81.5	61.3	45.5	412	309	1338	
41	-	70.9	80.9	60.4	44.3	402	381	1296	
40	-	70.4	80.3	59.5	43.1	392	371	1248	
39	-	69.9	79.9	58.6	419	382	362	1213	
38	-	69.4	79.4	57.7	40.8	372	353	1179	
37	-	69.9	78.8	56	39.6	363	344	1158	
36	(109)	68.4	78.3	55.9	38.4	354	336	1117	
35	108.5	67.9	77.7	55	37.2	345	327	1082	
34	(108)	67.4	77.2	54.2	36.1	336	319	1054	
33	107.5	66.87	76.6	53.3	349	327	311	1027	
32	(107)	66.3	76.1	52.1	33.7	318	301	1000	
31	(106)	65.8	75.6	51.3	32.5	310	294	979	
30	105.5	65.3	75	50.4	31.3	302	286	952	
29	104.5	64.7	74.5	49.5	30.1	294	279	931	
28	(104)	64.3	73.9	48.6	289	286	271	910	
27	(103)	63.8	73.3	47.7	278	279	264	882	
26	102.5	63.3	72.8	46.8	26.7	272	258	862	
25	101.5	62.8	72.2	45.9	25.5	266	253	855	
24	(101)	62.4	71.6	45	24.3	260	247	850	
23	100	62	71	44	23.1	254	243	846	
22	99	61.5	70.5	43.2	22	248	237	825	
21	98.5	61	69.9	42.3	20.7	243	231	815	
20	97.8	60.5	69.4	41.5	19.6	238	226	798	
(18)	96.7	-	-	-	-	230	219	775	
(16)	95.5	-	-	-	-	222	212	750	
(14)	93.9	-	-	-	-	213	203	720	
(12)	92.3	-	-	-	-	204	194	692	
(10)	90.7	-	-	-	-	196	187	663	
(8)	89.5	-	-	-	-	188	179	642	
(6)	87.1	-	-	-	-	173	165	590	
(4)	85.5	-	-	-	-	173	165	590	
(2)	83.5	-	-	-	-	166	158	565	
(0)	81.7	-	-	-	-	160	152	548	



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