

ROCKWELL HARDNESS

Rockwell Hardness Number		Rockwell Superficial Hardness Number		
C Scale, 150-kgf Diamond Penetrator (HRC)	A Scale, 60-kgf Diamond Penetrator (HRA)	15-N Scale, 15 kgf Superficial Diamond Penetrator (HR 15-N)	30-N Scale, 30-kgf Superficial Diamond Penetrator (HR 30-N)	45-N Scale, 45-kgf Superficial Diamond Penetrator (HR 45-N)
48.00	74.40	84.10	66.20	52.10
47.00	73.90	83.60	65.30	50.90
46.00	73.40	83.10	64.50	49.80
45.00	72.90	82.60	63.60	48.70
44.00	72.40	82.10	62.70	47.50
43.00	71.90	81.60	61.80	46.40
42.00	71.40	81.00	61.00	45.20
41.00	70.90	80.50	60.10	44.10
40.00	70.40	80.00	59.20	43.00
39.00	69.90	79.50	58.40	41.80
38.00	69.30	79.00	57.50	40.70
37.00	68.80	78.50	56.60	39.60
36.00	68.30	78.00	55.70	38.40
35.00	67.80	77.50	54.90	37.30
34.00	67.30	77.00	54.00	36.10
33.00	66.80	76.50	53.10	35.00
32.00	66.30	75.90	52.30	33.90
31.00	65.80	75.40	51.40	32.70
30.00	65.30	74.90	50.50	31.60
29.00	64.80	74.40	49.60	30.40
28.00	64.30	73.90	48.80	29.30
27.00	63.80	73.40	47.90	28.20
26.00	63.30	72.90	47.00	27.00
25.00	62.80	72.40	46.20	25.90
24.00	62.30	71.90	45.30	24.80
23.00	61.80	71.30	44.40	23.60
22.00	61.30	70.80	43.50	22.50
21.00	60.80	70.30	42.70	21.30
20.00	60.30	69.80	41.80	20.20

Rockwell Hardness Number		Rockwell Superficial Hardness Number		
B Scale, 100-kgf 1/16 in (1.588mm) ball (HRB)	A Scale, 60-kgf Diamond Penetrator (HRA)	15-T Scale, 15 kgf 1/16 in (1.588 mm) ball (HR 15-T)	30-T Scale, 30-kgf 1/16 in (1.588mm) ball (HR 30-T)	45-T Scale, 45-kgf 1/16 in (1.588mm) ball (HR 45-T)
100	61.5	91.5	80.4	70.2
99	60.9	91.2	79.7	69.2
98	60.3	90.8	79.0	68.2
97	59.7	90.4	78.3	67.2
96	59.1	90.1	77.7	66.1
95	58.5	89.7	77.0	65.1
94	58.0	89.3	76.3	64.1
93	57.4	88.9	75.6	62.1
92	56.8	88.6	74.9	62.1
91	56.2	88.2	74.2	61.1
90	55.6	87.8	73.5	60.1
89	55.0	87.5	72.8	59.0
88	54.5	87.1	72.1	58.0
87	53.9	86.7	71.4	57.0
86	53.3	86.4	70.7	56.0
85	52.7	86.0	70.0	55.0
84	52.1	85.6	69.3	54.0
83	51.5	85.2	68.6	52.9
82	50.9	84.9	67.9	51.9
81	50.4	84.5	67.2	50.9
80	49.8	84.1	66.5	49.9
79	49.2	83.8	65.8	48.9
78	48.6	83.4	65.1	47.9
77	48.0	83.0	64.4	46.8
76	47.4	82.6	63.7	45.8
75	46.9	82.3	63.0	44.8
74	46.3	81.9	62.4	43.8
73	45.7	81.5	61.7	42.6
72	45.1	81.2	61.0	41.8
71	44.5	80.8	60.3	40.7
70	43.9	80.4	59.6	39.7
69	43.3	80.1	58.9	38.7
68	42.8	79.7	58.2	37.7
67	42.2	79.3	57.5	36.7
66	41.6	78.9	56.8	35.7
65	41.0	78.6	56.1	34.7
64	40.4	78.2	55.4	33.6
63	39.8	77.8	54.7	32.6
62	39.3	77.5	54.0	31.6
61	38.7	77.1	53.3	30.6
60	38.1	76.7	52.6	29.6