



Toll Free: 877-980-3283

Local: 713-980-5089

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Rockwell						Rockwell Superficial				Brinell		Vickers	Shore	Approx Tensile Strength (PSI)
A	B	C	D	E	F	15-N	30-N	45-N	30-T	3000kg	500kg	136		
60kg Braze	100kg 1/16" Ball	150kg Brake	100kg Braze	100kg 1/8" Ball	60kg 1/16" Ball	15kg Braze	30kg Braze	45kg Braze	30kg 1/16" Ball	10mm Ball Steel	10mm Ball Steel	Diamond Pyramid	Sciero- scope	
86.5	x	70.0	78.5	x	x	94.0	86.0	77.6	x	x	x	1,076.0	101.0	x
86.0	x	69.0	77.7	x	x	93.5	85.0	76.5	x	x	x	1,044.0	99.0	x
85.6	x	68.0	76.9	x	x	93.2	84.4	75.4	x	x	x	940.0	97.0	x
85.0	x	67.0	76.1	x	x	92.9	83.6	74.2	x	x	x	900.0	95.0	x
84.5	x	66.0	75.4	x	x	92.5	82.8	73.2	x	x	x	865.0	92.0	x
83.9	x	65.0	74.5	x	x	92.2	81.9	72.0	x	739.0	x	832.0	91.0	x
83.4	x	64.0	73.8	x	x	91.8	81.1	71.0	x	722.0	x	800.0	88.0	x
82.8	x	63.0	73.0	x	x	91.4	80.1	69.9	x	705.0	x	772.0	87.0	x
82.3	x	62.0	72.2	x	x	91.1	79.3	68.8	x	688.0	x	746.0	85.0	x
81.8	x	61.0	71.5	x	x	90.7	78.4	67.7	x	670.0	x	720.0	83.0	x
81.2	x	60.0	70.7	x	x	90.2	77.5	66.6	x	654.0	x	697.0	81.0	320,000
80.7	x	59.0	69.9	x	x	89.8	76.6	65.5	x	534.0	x	674.0	80.0	310,000
80.1	x	58.0	69.2	x	x	89.3	75.7	64.3	x	615.0	x	653.0	78.0	300,000
79.6	x	57.0	68.5	x	x	88.9	74.8	63.2	x	595.0	x	633.0	76.0	290,000
79.0	x	56.0	67.7	x	x	88.3	73.9	62.0	x	577.0	x	613.0	75.0	282,000
78.5	120.0	55.0	66.9	x	x	87.9	73.0	60.9	x	560.0	x	595.0	74.0	274,000
78.0	120.0	54.0	66.1	x	x	87.4	72.0	59.8	x	543.0	x	577.0	72.0	266,000
77.4	119.0	53.0	65.4	x	x	86.9	71.2	58.6	x	525.0	x	560.0	71.0	257,000
76.8	119.0	52.0	64.6	x	x	86.4	70.2	57.4	x	500.0	x	544.0	69.0	245,000
76.3	118.0	51.0	63.8	x	x	85.9	69.4	56.1	x	487.0	x	528.0	68.0	239,000

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60kg Brale	100kg 1/16" Ball	150kg Brake	100kg Brale	100kg 1/8" Ball	60kb 1/16" Ball	15kg Brale	30kg Brale	45kg Brale	30kg 1/16" Ball	10mm Ball Steel	10mm Ball Steel	Diamond Pyramid	Sciero-scope	
75.9	117.0	50.0	63.1	x	x	85.5	68.5	55.0	x	475.0	x	513.0	67.0	233,000
75.2	117.0	49.0	62.1	x	x	85.0	67.6	53.8	x	464.0	x	498.0	66.0	227,000
74.7	116.0	48.0	61.4	x	x	84.5	66.7	52.5	x	451.0	x	484.0	64.0	221,000
74.1	116.0	47.0	60.8	x	x	83.9	65.8	51.4	x	442.0	x	471.0	63.0	217,000
73.6	115.0	46.0	60.0	x	x	83.5	64.8	50.3	x	432.0	x	458.0	62.0	212,000
73.1	115.0	45.0	59.2	x	x	83.0	64.0	49.0	x	421.0	x	446.0	60.0	206,000
72.5	114.0	44.0	58.5	x	x	82.5	63.1	47.8	x	409.0	x	434.0	58.0	200,000
72.0	113.0	43.0	57.7	x	x	82.0	62.2	46.7	x	400.0	x	423.0	57.0	196,000
71.5	113.0	42.0	56.9	x	x	81.5	61.3	45.5	x	390.0	x	412.0	56.0	191,000
70.9	112.0	41.0	56.2	x	x	80.9	60.4	44.3	x	381.0	x	402.0	55.0	187,000
70.4	112.0	40.0	55.4	x	x	80.4	59.5	43.1	x	371.0	x	392.0	54.0	182,000
69.9	111.0	39.0	54.6	x	x	79.9	58.6	41.9	x	362.0	x	382.0	52.0	177,000
69.4	110.0	38.0	53.8	x	x	79.4	57.7	40.8	x	353.0	x	372.0	51.0	173,000
68.9	110	37	53.1	x	x	78.8	56.8	39.6	x	344	x	363	50	169,000
68.4	109	36	52.3	x	x	78.3	55.9	38.4	x	336	x	354	49	165,000
67.9	109	35	51.5	x	x	77.7	55	37.2	x	327	x	345	48	160,000
67.4	108	34	50.8	x	x	77.2	54.2	36.1	x	319	x	336	47	156,000
66.8	108	33	50	x	x	76.6	53.3	34.9	x	311	x	327	46	152,000
66.3	107	32	49.2	x	x	76.1	52.1	33	x	301	x	318	44	147,000
65.8	106	31	48.4	x	x	75.6	51.3	32.5	x	294	x	310	43	144,000
65.3	105	30	47.7	x	x	75	50.4	31.3	x	286	x	302	42	140,000
64.7	104	29	47	x	x	74.5	49.5	30.1	x	279	x	294	41	137,000
64.3	104	28	46.1	x	x	73.9	48.6	28.9	x	271	x	286	41	133,000
63.8	103	27	45.2	x	x	73.3	47.7	27.8	x	264	x	279	40	129,000
63.3	103	26	44.6	x	x	72.8	46.8	26.7	x	258	x	271	39	126,000
62.8	102	25	43.8	x	x	72.2	45.9	25.5	x	253	x	264	38	124,000
62.4	101	24	43.1	x	x	71.6	45	24.3	x	247	x	260	37	121,000
62	100	23	42.1	x	x	71	44	23.1	82	240	201	254	36	118,000
61.5	99	22	41.6	x	x	70.5	43.2	22	81.5	234	195	248	35	115,000
61	98	21	40.9	x	x	69.9	42.3	20.7	81	228	189	243	35	112,000

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60kg Brale	100kg 1/16" Ball	150kg Brake	100kg Brale	100kg 1/8" Ball	60kb 1/16" Ball	15kg Brale	30kg Brale	45kg Brale	30kg 1/16" Ball	10mm Ball Steel	10mm Ball Steel	Diamond Pyramid	Sciero-scope	
60.5	97	20	40.1	x	x	69.4	41.5	19.6	80.5	222	184	238	34	109,000
59	96	18	x	x	x	x	x	x	80	216	179	230	33	106,000
58	95	16	x	x	x	x	x	x	79	210	175	222	32	103,000
57.5	94	15	x	x	x	x	x	x	78.5	205	171	213	31	100,000
57	93	13	x	x	x	x	x	x	78	200	167	208	30	98,000
56.8	92	12	x	x	x	x	x	x	77.5	195	163	204	29	96,000
56	91	10	x	x	x	x	x	x	77	190	160	196	28	93,000
55.5	90	9	x	x	x	x	x	x	76	185	157	192	27	91,000
55	89	8	x	x	x	x	x	x	75.5	180	154	188	26	88,000
54	88	7	x	x	x	x	x	x	75	176	151	184	26	86,000
53.5	87	6	x	x	x	x	x	x	4.5	172	148	180	26	84,000
53	86	5	x	x	x	x	x	x	74	169	145	176	25	83,000
52.5	85	4	x	x	x	x	x	x	73.5	165	142	173	25	81,000
52	84	3	x	x	x	x	x	x	73	162	140	170	25	79,000
51	83	2	x	x	x	x	x	x	72	159	137	166	24	78,000
50.5	82	1	x	x	x	x	x	x	71.5	156	135	163	24	76,000
50	81	0	x	x	x	x	x	x	71	153	133	160	24	75,000
49.5	80	x	x	x	x	x	x	x	70	150	130	x	x	73,000
49	79	x	x	x	x	x	x	x	69.5	147	128	x	x	x
48.5	78	x	x	x	x	x	x	x	69	144	126	x	x	x
48	77	x	x	x	x	x	x	x	68	141	124	x	x	x
47	76	x	x	x	x	x	x	x	67.5	139	122	x	x	x
46.5	75	x	x	x	99.5	x	x	x	67	137	120	x	x	x
46	74	x	x	x	99	x	x	x	66	135	118	x	x	x
45.5	73	x	x	x	98.5	x	x	x	65.5	132	116	x	x	x
45	72	x	x	x	98	x	x	x	65	130	114	x	x	x
44.5	71	x	x	100	97.5	x	x	x	64.2	127	112	x	x	x
44	70	x	x	99.5	97	x	x	x	63.5	125	110	x	x	x
4.5	69	x	x	99	96	x	x	x	62.8	123	109	x	x	x
43	68	x	x	98	95.5	x	x	x	62	121	107	x	x	x

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42.5	67	x	x	97.5	95	x	x	x	61.4	119	106	x	x	x
42	66	x	x	97	94.5	x	x	x	60.5	11	104	x	x	x
41.8	65	x	x	96	94	x	x	x	60.1	116	102	x	x	x
41.5	64	x	x	95.5	93.5	x	x	x	59.5	114	101	x	x	x
41	63	x	x	95	93	x	x	x	58.7	112	99	x	x	x
40.5	62	x	x	94.5	92	x	x	x	58	110	98	x	x	x
40	61	x	x	93	91.5	x	x	x	57.3	108	96	x	x	x
39.5	60	x	x	93	91	x	x	x	56.5	107	95	x	x	x
39	59	x	x	92.5	90.5	x	x	x	55.9	106	94	x	x	x
38.5	58	x	x	92	9	x	x	x	55	104	92	x	x	x
38	57	x	x	91	89.5	x	x	x	54.6	102	91	x	x	x
37.8	56	x	x	90.5	89	x	x	x	54	101	90	x	x	x
37.5	55	x	x	90	88	x	x	x	53.2	99	89	x	x	x
37	54	x	x	89.5	87.5	x	x	x	52.5	x	87	x	x	x
36.5	53	x	x	89	87	x	x	x	51.8	x	86	x	x	x
36	52	x	x	88	86.5	x	x	x	51	x	85	x	x	x
35.5	51	x	x	87.5	86	x	x	x	50.4	x	84	x	x	x
35	50	x	x	87	85.5	x	x	x	49.5	x	83	x	x	x
34.8	49	x	x	86.5	85	x	x	x	49.1	x	82	x	x	x
34.5	48	x	x	85.5	84.5	x	x	x	48.5	x	81	x	x	x
34	47	x	x	85	84	x	x	x	47.7	x	80	x	x	x
33.5	46	x	x	84.5	83	x	x	x	47	x	79	x	x	x
33	45	x	x	84	82.5	x	x	x	46.2	x	9	x	x	x
32.5	44	x	x	83.5	82	x	x	x	25.5	x	78	x	x	x
32	43	x	x	82.5	81.5	x	x	x	44.8	x	77	x	x	x
31.5	42	x	x	82	81	x	x	x	44	x	76	x	x	x
31	41	x	x	81.5	80.5	x	x	x	43.4	x	75	x	x	x
30.8	40	x	x	81	79.5	x	x	x	43	x	74	x	x	x
30.5	39	x	x	80	79	x	x	x	42.1	x	74	x	x	x
30	38	x	x	79.5	78.5	x	x	x	41.5	x	73	x	x	x

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29.5	37	x	x	9	78	x	x	x	40.7	x	72	x	x	x
29	36	x	x	78.5	77.5	x	x	x	40	x	71	x	x	x
28.5	35	x	x	78	7	x	x	x	39.3	x	71	x	x	x
28	34	x	x	77	76.5	x	x	x	38.5	x	70	x	x	x
27.8	33	x	x	76.5	5.5	x	x	x	37.9	x	69	x	x	x
27.5	32	x	x	76	5	x	x	x	37.5	x	68	x	x	x
27	31	x	x	5.5	74.5	x	x	x	36.6	x	68	x	x	x
26.5	30	x	x	75	74	x	x	x	36	x	67	x	x	x
26	29	x	x	74	73.5	x	x	x	35.2	x	66	x	x	x
25.5	28	x	x	73.5	73	x	x	x	34.5	x	66	x	x	x
25	27	x	x	3	72.5	x	x	x	33.8	x	65	x	x	x
24.5	26	x	x	2.5	72	x	x	x	33.1	x	65	x	x	x
24.2	25	x	x	2	71	x	x	x	32.4	x	64	x	x	x
24	24	x	x	71	70.5	x	x	x	32	x	64	x	x	x
23.5	23	x	x	70.5	70	x	x	x	31.1	x	63	x	x	x
23	22	x	x	70	69.5	x	x	x	30.4	x	63	x	x	x
22.5	21	x	x	69.5	69	x	x	x	29.7	x	62	x	x	x
22	20	x	x	68.5	68.5	x	x	x	29	x	62	x	x	x
21.5	19	x	x	68	68	x	x	x	28.1	x	61	x	x	x
21.2	18	x	x	67.5	7	x	x	x	27.4	x	61	x	x	x
21	17	x	x	67	66.5	x	x	x	26.7	x	60	x	x	x
20.2	16	x	x	66.5	66	x	x	x	26	x	60	x	x	x
20	15	x	x	65.5	65.5	x	x	x	25.3	x	59	x	x	x
x	14	x	x	65	65	x	x	x	24.6	x	59	x	x	x
x	13	x	x	64.5	64.5	x	x	x	23.9	x	58	x	x	x
x	12	x	x	64	64	x	x	x	23.5	x	58	x	x	x
x	11	x	x	63.5	63.5	x	x	x	22.3	x	57	x	x	x
x	10	x	x	62.5	63	x	x	x	21.9	x	57	x	x	x
x	9	x	x	62	62	x	x	x	21.2	x	56	x	x	x
x	8	x	x	61.5	61.5	x	x	x	20.5	x	56	x	x	x

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x	7	x	x	61	61	x	x	x	19.8	x	56	x	x	x
x	6	x	x	60.5	60.5	x	x	x	19.1	x	55	x	x	x
x	5	x	x	60	60	x	x	x	18.4	x	55	x	x	x
x	4	x	x	59	59.5	x	x	x	18	x	55	x	x	x
x	3	x	x	58.5	59	x	x	x	17.1	x	54	x	x	x
x	2	x	x	58	58	x	x	x	16.4	x	54	x	x	x
x	1	x	x	57.5	57.5	x	x	x	15.7	x	53	x	x	x
x	0	x	x	57	57	x	x	x	15	x	53	x	x	x