



Hardness Conversion Table

Approximate Relation of Brinell and Rockwell Hardness to Tensile Strength for Carbon and Alloy Steel

Brinell Indent Diameter (mm)	Brinell Hardness Number	Rockwell Hardness Number		Tensile Strength (approx.) 1000 psi	Brinell Indent Diameter (mm)	Brinell Hardness Number	Rockwell Hardness Number		Tensile Strength (approx.) 1000 psi
	10-mm. Ball 3000-kg. Load	B-Scale 100-kg. Load 1/16" diam. Ball	C-Scale 150-kg. Load Brale Penetrator			10-mm. Ball 3000-kg. Load	B-Scale 100-kg. Load 1/16" diam. Ball	C-Scale 150-kg. Load Brale Penetrator	
2.25	745	-	65.3	-	3.75	262	(103.0)	26.6	127
2.30	712	-	-	-	3.80	255	(102.0)	25.4	123
2.35	682	-	61.7	-	3.85	248	(101.0)	24.2	120
2.40	653	-	60.0	-	3.90	241	100.0	22.8	116
2.45	627	-	58.7	-	3.95	235	99.0	21.7	114
2.50	601	-	57.3	-	4.00	229	98.2	20.5	111
2.55	578	-	56.0	-	4.05	223	97.3	(18.8)	-
2.60	555	-	54.7	298	4.10	217	96.4	(17.5)	105
2.65	534	-	53.5	288	4.15	212	95.5	(16.0)	102
2.70	514	-	52.1	274	4.20	207	94.6	(15.2)	100
2.75	495	-	51.0	264	4.25	201	93.8	(13.8)	98
2.80	477	-	49.6	252	4.30	197	92.8	(12.7)	95
2.85	461	-	48.5	242	4.35	192	91.9	(11.5)	93
2.90	444	-	47.1	230	4.40	187	90.7	(10.0)	90
2.95	429	-	45.7	219	4.45	183	90.0	(9.0)	89
3.00	415	-	44.5	212	4.50	179	89.0	(8.0)	87
3.05	401	-	43.1	202	4.55	174	87.8	(6.4)	85
3.10	388	-	41.8	193	4.60	170	86.8	(5.4)	83
3.15	375	-	40.4	184	4.65	167	86.0	(4.4)	81
3.20	363	-	39.1	177	4.70	163	85.0	(3.3)	79
3.25	352	(110.0)	37.9	171	4.80	156	82.9	(0.9)	76
3.30	341	(109.0)	36.6	164	4.90	149	80.8	-	73
3.35	331	(108.5)	35.5	159	5.00	143	78.7	-	71
3.40	321	(108.0)	34.3	154	5.10	137	76.4	-	67
3.45	311	(107.5)	33.1	149	5.20	131	74.0	-	65
3.50	302	(107.0)	32.1	146	5.30	126	72.0	-	63
3.55	293	(106.0)	30.9	141	5.40	121	69.0	-	60
3.60	285	(105.5)	29.9	138	5.50	116	67.6	-	58
3.65	277	(104.5)	28.8	134	5.60	111	65.7	-	56
3.70	269	(104.0)	27.6	130					

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