



# ANCON

achieving over & above

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### Brinell Hardness No's & Tensile Strength Equivalents with Corresponding HRC No's

Brinell Dia. of Impression MM	Brinell Hardness No. HB	Rockwell C Scale Hardness No. HRC	Equivalent Rm Tons/in <sup>2</sup>	Equivalent Rm psi	Equivalent Rm N
2.90	444	47	98	219520	1514
2.95	429	45.5	95	212800	1468
3.00	415	44.5	92	206080	1422
3.05	401	43	88	197120	1359
3.10	388	42	85	190400	1312
3.15	375	40.5	82	183680	1266
3.20	363	39	80	179200	1235
3.25	352	38	77	172480	1139
3.30	341	36.5	75	168000	1158
3.35	331	35.5	73	163520	1128
3.40	321	34.5	71	159040	1097
3.45	311	33	68	152320	1050
3.50	302	32	66	147840	1020
3.55	293	31	64	143360	990
3.60	285	30	63	141120	973
3.65	277	29	61	136640	942
3.70	269	27.5	59	132160	911
3.75	262	26.5	58	129920	896
3.80	255	25.5	56	125440	864
3.85	248	24	55	123200	850
3.90	241	23	53	118720	820
3.95	235	22	51	114240	790
4.00	229	20.5	50	112000	775
4.05	223		49	109760	757
4.10	217		48	107520	742
4.15	212		46	103040	711
4.20	207		45	100800	695
4.30	197		43	96320	664
4.40	187		41	91840	633
4.50	179		39	87360	602

### Weights per metre / foot

Size Ø MM			Weight			Size Ø inch		
Size Ø MM	kg/m	kg/ft	Size Ø MM	kg/m	kg/ft	Size Ø inch	kg/m	kg/ft
20	2.47	0.75	130	104.2	31.76	12	565	173
23	3.26	0.99	135	112.4	34.25	13	660	200
25	3.85	1.17	140	120.8	36.93	13 <sup>1</sup> / <sub>4</sub>	682	210
28	4.83	1.92	145	129.6	39.51	14	760	235
30	5.55	1.69	150	138.7	42.28	14 <sup>1</sup> / <sub>4</sub>	795	244
32	6.31	1.91	155	148.1	45.14	15	878	270
35	7.55	2.30	160	157.3	48.10	15 <sup>1</sup> / <sub>4</sub>	910	280
38	8.90	2.71	165	167.9	51.16	15 <sup>1</sup> / <sub>2</sub>	940	290
40	9.86	3.01	170	178.2	54.31	16	1000	308
43	11.40	3.47	175	188.8	57.54	16 <sup>1</sup> / <sub>4</sub>	1035	318
46	13.05	3.98	180	199.8	60.88	16 <sup>1</sup> / <sub>2</sub>	1060	325
48	14.21	4.33	190	222.6	67.84	17	1125	346
50	15.41	4.70	195	234.4	71.44	18	1270	390
54	17.98	5.48	200	246.6	75.16	18 <sup>1</sup> / <sub>4</sub>	1300	400
57	20.03	6.11	205	259.1	78.97	19	1420	435
60	22.20	6.79	210	271.9	82.87	20	1565	480
65	26.05	7.94	215	285.0	86.86	20 <sup>1</sup> / <sub>4</sub>	1610	495
67	27.68	8.44	220	298.4	90.95	21	1725	533
70	30.21	9.21	230	326.2	99.41	22	2045	585
73	32.86	10.01	235	340.5	103.87	23	2225	638
75	34.68	10.57	240	355.1	108.24	25	2440	750
80	39.46	12.03	250	385.3	117.45	26	2640	810
83	42.50	12.95	255	400.9	122.19	28	3080	950
85	44.55	13.58	260	416.8	127.03	29	3200	1020
90	49.94	15.22	270	449.5	136.99	30	3540	1080
95	55.64	16.96	280	483.4	147.32	31	4080	1160
100	61.65	18.79	290	518.5	158.03	32	4350	1240
105	67.96	20.72	300	554.9	169.12	33	4640	1325
110	74.60	22.74	305	573.0	174.64	34	4560	1400
115	81.94	24.85	310	592.3	180.52	37	5400	1660
120	88.78	27.06	320	631.3	192.42	41	6660	2050
125	96.25	29.36	330	672.0	204.80	46	8190	2575

### Conversion Factors STRESS

To Convert	Multiply by	To Convert	Multiply by
N/mm <sup>2</sup> to kg/mm <sup>2</sup>	0.10197	Tons/in <sup>2</sup> to N/mm <sup>2</sup>	15.444
N/mm <sup>2</sup> to tons/in <sup>2</sup>	0.06475	Tons/in <sup>2</sup> to kg/mm <sup>2</sup>	1.5794
N/mm <sup>2</sup> to psi	145	Tons/in <sup>2</sup> to psi	2240
Kg/mm <sup>2</sup> to N/mm <sup>2</sup>	9.807	psi to Tons/in <sup>2</sup>	0.0004464
Kg/mm <sup>2</sup> to tons/in <sup>2</sup>	0.635	psi to N/mm <sup>2</sup>	0.006895
Kg/mm <sup>2</sup> to psi	1422	psi to kg/mm <sup>2</sup>	0.0007031

### Conversion Factors ENERGY

To Convert	Multiply by
Joules to Kg.m	0.10197
Joules to Ft.lbs	0.7376
Kg.m to Joules	9.807
Kg.m to Ft.lbs	7.236
Ft.lbs to Joules	1.3558
Ft.lbs to Kg.m	0.1383

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