

(Vickers )

Vickers 50kg	Brinell 10mm 3000Kg	Rockwell				Rockwell superficial (Superficial Brale )			Shore	(kg/mm <sup>2</sup> )	Vickers 50kg
		A Scale 60Kg Brale	B Scale 100Kg	C Scale 100Kg Brale	D Scale 100Kg Brale	15-N Scale 15Kg	30-N Scale 15Kg	45-N Scale 15Kg			
940	-	85.6	-	68.0	76.9	93.2	84.4	74.4	97	-	940
920	-	85.3	-	67.5	76.5	93.0	84.0	74.3	96	-	920
900	-	85.0	-	67.0	76.1	92.9	83.6	74.2	95	-	900
880	-	84.7	-	66.4	75.7	92.7	83.1	73.6	93	-	880
860	-	84.4	-	65.9	75.3	92.5	82.7	73.1	92	-	860
840	-	84.1	-	65.3	74.8	92.3	82.2	72.2	91	-	840
820	-	83.8	-	64.7	74.3	92.1	81.7	71.8	90	-	820
800	-	83.4	-	64.0	73.8	92.8	81.1	71.0	88	-	800
780	-	83.0	-	63.3	73.3	91.5	80.4	70.2	87	-	780
760	-	82.6	-	62.5	72.6	91.2	79.7	69.4	86	-	760
740	-	82.2	-	61.8	72.1	91.0	79.1	68.6	84	-	740
720	-	81.8	-	61.0	71.5	90.7	78.4	67.7	83	-	720
700	-	81.3	-	60.1	70.8	90.3	77.6	66.7	81	-	700
690	-	81.1	-	59.7	70.5	90.1	77.2	66.2	-	-	690
680	-	80.8	-	59.2	70.1	89.8	76.8	65.7	80	232	680
670	-	80.6	-	58.8	69.8	89.7	76.4	65.3	-	228	670
660	-	80.3	-	58.3	69.4	89.5	75.9	64.7	79	224	660
650	-	80.0	-	57.8	69.0	85.9	75.5	64.1	-	221	650
640	-	79.8	-	57.3	68.7	89.0	75.1	63.5	77	217	640

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630	-	79.5	-	56.8	68.3	88.8	74.6	63.0	-	214	630
620	-	79.2	-	56.3	67.9	88.5	74.2	62.4	75	210	620
610	-	78.9	-	55.7	67.5	88.2	73.6	61.7	-	207	610
600	-	78.6	-	55.2	67.0	88.0	73.2	61.2	74	203	600
590	-	78.4	-	54.7	66.7	87.8	72.7	60.5	-	200	590
580	-	78.0	-	54.1	66.2	87.5	72.1	59.9	72	196	580
570	-	77.3	-	53.6	65.8	87.2	71.7	59.3	-	193	570
560	-	77.4	-	53.0	65.4	86.9	71.2	58.6	71	189	560
550	505	77.0	-	52.3	64.8	86.6	70.5	57.8	-	186	550
540	496	76.7	-	51.7	64.4	86.3	70.0	57.0	69	183	540
530	488	76.4	-	51.1	63.9	86.0	69.5	56.2	-	179	530
520	480	76.1	-	50.5	63.5	85.7	69.0	55.6	67	176	520
510	473	75.7	-	49.8	62.9	85.4	68.3	54.7	-	173	510
500	465	75.3	-	49.1	62.2	85.0	67.7	53.9	66	169	500
490	456	74.9	-	48.4	61.6	84.7	67.1	53.1	-	165	490
480	448	74.5	-	47.7	61.3	84.3	66.4	52.2	64	162	480
470	441	74.1	-	46.9	60.7	83.9	65.7	51.3	-	158	470
460	433	73.6	-	46.1	60.1	83.6	64.9	50.4	62	155	460
450	425	73.3	-	45.3	59.4	83.2	64.3	49.4	-	151	450
440	415	72.8	-	44.5	58.8	82.8	63.5	48.4	59	148	440
430	405	72.3	-	43.6	58.2	82.3	62.7	47.4	-	144	430

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420	397	71.8	-	42.7	57.5	81.8	61.9	46.4	57	141	420
410	388	71.4	-	41.8	56.8	81.4	61.1	45.3	-	137	410
400	379	70.8	-	40.8	56.0	81.0	60.2	44.1	55	134	400
390	369	70.3	-	39.8	55.2	80.3	59.3	42.9	-	130	390
380	360	69.8	110.1	38.8	54.4	79.8	58.4	41.7	52	127	380
370	350	69.2	-	37.7	53.6	79.2	57.4	40.4	-	123	370
360	341	68.7	109.0	36.6	52.8	78.6	56.4	39.1	50	120	360
350	331	68.1	-	35.5	51.9	78.0	55.4	37.8	-	117	350
340	322	67.6	108.0	34.4	51.1	77.4	54.4	36.5	47	113	340
330	313	67.0	-	33.3	50.2	76.8	53.6	35.2	-	110	330
320	303	66.4	107.0	32.2	49.4	76.2	52.3	33.9	45	106	320
310	294	65.8	-	31.0	48.4	75.6	51.3	32.5	-	103	310
300	284	65.2	105.5	29.8	47.5	74.9	50.2	31.1	42	99	300
295	280	64.8	-	29.2	47.1	74.6	49.7	30.4	-	98	295
290	275	64.5	104.5	28.5	46.5	74.2	49.0	29.5	41	96	290
285	270	64.2	-	27.8	46.0	73.8	48.4	28.7	-	94	285
280	265	63.8	103.5	27.1	45.3	73.4	47.8	27.9	40	92	280
275	260	63.5	-	26.4	44.9	73.0	47.2	27.1	-	91	275
270	256	63.1	102.0	25.6	44.3	72.6	46.4	26.2	38	89	270
265	250	62.7	-	24.8	43.7	72.1	45.7	25.2	-	87	265
260	247	62.4	101.0	24.0	43.1	71.6	45.0	24.3	37	85	260

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255	243	62.0	-	23.1	42.2	71.1	44.2	23.2	-	84	255
250	238	61.6	99.5	22.2	41.7	70.6	43.4	22.2	36	82	250
245	233	61.2	-	21.3	41.1	70.1	42.5	21.2	-	80	245
240	228	60.7	98.1	20.3	40.3	69.6	41.7	19.9	34	78	240
230	219	-	96.7	18.0	-	-	-	-	33	75	230
220	209	-	95.0	15.7	-	-	-	-	32	71	220
210	200	-	93.4	13.4	-	-	-	-	30	68	210
200	190	-	91.5	11.0	-	-	-	-	29	65	200
190	181	-	89.5	8.5	-	-	-	-	28	62	190
180	171	-	87.1	6.0	-	-	-	-	26	59	180
170	162	-	85.0	3.0	-	-	-	-	25	56	170
160	152	-	81.7	0.0	-	-	-	-	24	53	160
150	143	-	78.7		-	-	-	-	22	50	150
140	133	-	75.0		-	-	-	-	21	46	140
130	124	-	71.2	-	-	-	-	-	20	44	130
120	114	-	66.7	-	-	-	-	-	-	40	120
110	105	-	62.3	-	-	-	-	-	-	-	110
100	95	-	56.2	-	-	-	-	-	-	-	100
95	90	-	52.0	-	-	-	-	-	-	-	95
90	86	-	48.0	-	-	-	-	-	-	-	90
85	81	-	41.0	-	-	-	-	-	-	-	85

[            ]

1. 1 ksi = 1,000 lb<sub>f</sub>/in<sup>2</sup> (psi) = 6.8948 MPa = 0.70307 Kg/mm<sup>2</sup>

3. 1 Kg/mm<sup>2</sup> = 1.4224 ksi = 9.8067 Mpa

5. Brinell : 3000 Kg 가 10mm ball .

7. Rockwell B Scale : 100 Kg , 1.59mm (1/16") .

9. Rockwell D Scale : 100 Kg , 120° Diamond Cone (Brale ) .

2. 1 MPa = 0.10197 kgf/mm<sup>2</sup> = 0.14504 ksi

4. Vickers : 50 kg 136° Diamond Pyramid .

6. Rockwell A Scale : 60 Kg , 120° Diamond Cone (Brale ) .

8. Rockwell C Scale : 150 Kg , 120° Diamond Cone (Brale ) .