

“Hollinbrow Precision Products - The Experts in Thin Metals”

Hardness Conversion

Tensile Strength		Vickers	Brinell	Rockwell	Rockwell
in MPa	in PSI	HV	HB	HRB	HRC
255	36.993	80	76		
270	39.169	85	80,7	41,0	
285	41.345	90	85,5	48,0	
305	44.246	95	90,2	52,0	
320	46.422	100	95	56,2	
335	48.598	105	99,8		
350	50.775	110	105	62,3	
370	53.676	115	109		
385	55.852	120	114	66,7	
400	58.028	125	119		
415	60.204	130	124	71,2	
430	6.238	135	128		
450	65.282	140	133	75,0	
465	67.458	145	138		
480	69.634	150	143	78,7	
495	7.181	155	147		
510	73.986	160	152	81,7	
530	76.887	165	156		
545	79.063	170	162	85,0	
560	81.239	175	166		
575	83.415	180	171	87,1	
595	86.317	185	176		
610	88.493	190	181	89,5	
625	90.669	195	185		
640	92.845	200	190	91,5	
660	95.746	205	195	92,5	
675	97.922	210	199	93,5	
690	100.098	215	204	94,0	
705	102.274	220	209	95,0	
720	10.445	225	214	96,0	
740	107.352	230	219	96,7	
755	109.528	235	223		
770	111.704	240	228	98,1	20,3
785	11.388	245	233		21,3
800	116.056	250	238	99,5	22,2

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Tensile Strength		Vickers	Brinell	Rockwell	Rockwell
in MPa	in PSI	HV	HB	HRB	HRC
820	118.957	255	242		23,1
835	121.133	260	247		24,0
850	123.331	265	252		24,8
865	125.486	270	257		25,6
880	127.662	275	261		26,4
900	130.563	280	266		27,1
915	132.739	285	271		27,8
930	134.915	290	276		28,5
950	137.817	295	280		29,2
965	139.993	300	285		29,8
995	144.345	310	295		31,0
1030	149.422	320	304		32,2
1060	153.774	330	314		33,3
1095	158.852	340	323		34,4
1125	163.204	350	333		35,5
1155	167.556	360	342		36,6
1190	172.633	370	352		37,7
1220	176.985	380	361		38,8
1255	182.063	390	371		39,8
1290	187.714	400	380		40,8
1320	191.492	410	390		41,8
1350	195.845	420	399		42,7
1385	200.922	430	409		43,6
1420	205.999	440	418		44,5
1455	211.077	450	428		45,3
1485	215.429	460	437		46,1
1520	220.506	470	447		46,9
1555	225.584	480			47,7
1595	231.387	490			48,4
1630	236.464	500			49,1
1665	241.542	510			49,8
1700	246.619	520			50,5
1740	252.422	530			51,1
1775	257.499	540			51,7
1810	262.577	550			52,3
1845	267.654	560			53,0
1880	272.732	570			53,6
Tensile Strength		Vickers	Brinell	Rockwell	Rockwell

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in MPa	in PSI	HV	HB	HRB	HRC
1920	278.534	580			54,1
1955	283.612	590			54,7
1995	289.415	600			55,2
2030	294.492	610			55,7
2070	300.295	620			56,3
2105	305.372	630			56,8
2145	311.175	640			57,3
2180	316.253	650			57,8
		660			58,3
		670			58,8
		680			59,2
		690			59,7
		700			60,1
		720			61,0
		740			61,8
		760			62,5
		780			63,3
		800			64,0
		820			64,7
		840			65,3
		860			65,9
		880			66,4
		900			67,0
		920			67,5
		940			68,0

This table shows approximate hardness of steel using Brinell, Rockwell B and C and Vickers scales. These conversion charts are provided for guidance only as each scale uses different methods of measuring hardness. The left-hand columns show an approximate equivalent tensile strength.

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