





Steel Hardness Conversion Table

Tensile Strength N / mm ²	Vickers HV	Brinell HB	Rockwell HRC
835	260	247	24
850	265	252	24.8
865	270	257	25.6
880	275	261	26.4
900	280	266	27.1
915	285	271	27.8
930	290	276	28.5
950	295	280	29.2
965	300	285	29.8
1030	310	295	31
1060	320	304	32.2
1095	330	314	33.3
1125	340	323	33.4
1155	350	333	33.5
1190	360	342	36.6
1220	370	352	37.7
1255	380	361	38.8
1290	390	371	39.8
1320	400	380	40.8
1350	410	390	41.8
1385	420	399	42.7
1420	430	409	43.6
1455	440	418	44.5
1485	450	428	45.3
1520	460	437	46.1
1555	470	447	46.9
1595	480	(456)	47.7
1630	490	(466)	48.4
1665	500	(476)	49.1
1700	510	(485)	49.8
1740	520	(495)	50.5
1775	530	(504)	51.1
1810	540	(513)	51.7
1845	550	(523)	52.3
1880	560	(532)	53
1920	570	(542)	53.6
1955	580	(551)	54.1
1995	590	(561)	54.7
2030	600	(570)	55.2
2070	610	(580)	55.7
2105	620	(589)	56.3
2145	630	(599)	56.8
2180	640	(608)	57.3
-	650	(618)	57.8
-	660	-	58.3
-	670	-	58.8
-	680	-	59.2
-	690	-	59.7
-	700	-	60.1
-	720	-	61
-	740	-	61.8
-	760	-	62.5
-	780	-	63.3
-	800	-	64
-	820	-	64.7
-	840	-	65.3

Bronze Alloys Comparison Table

Material	DIN	EN	NF/AFNOR	BS	ISO	JIS	SAE / AISI & Other
2.0220	CuZn5	CW500L	CuZn5	CZ125	CuZn5	C2100	C21000 . B134 - 1
2.0230	CuZn10	CW501L	CuZn10	CZ101	CuZn10	C2200	C22000
2.0240	CuZn15	CW502L	CuZn15	CZ102	CuZn15	C2300	C23000.B 134 - 6.B135-1
2.0250	CuZn20	CW503L	CuZn20	CZ102	CuZn20	C2400	C24000
2.0265	CuZn30	CW505L	CuZn30	CZ102	CuZn30	C2600	C26000.B 134 - 6.B135-2
2.0321	CuZn37	CW508L	CuZn37	CZ108	-	C2700	C27200 . MS63
2.0360	CuZn40	CW509L	CuZn40	CZ109	CuZn40	C2800	C28000
2.0598	CuZn25Al5	CC762	-	HTB3	CuZn25	-	C86300 . SAE 430B
2.0596	CuZn34Al2	-	U-Z 36 N3	HTB1	-	-	C86200 . SAE 430A
2.0592	CuZn35Al1	-	U-Z 36 N3	HTB1	CuZn35	-	C86500 . SAE 43
2.0510	CuZn37Al1	CW716R	-	-	-	-	-
2.0550	CuZn40Al2	CW713R	-	C2135	CuZn37	-	C76420 . So - MS Al2
2.0561	CuZn40Al1	CW718R	-	-	-	-	-
2.0401	CuZn39Pb3	CW614N	-	CZ121 Pb3	-	-	MS58
2.0241	CuZn39Pb2	CW617N	-	CZ123	-	-	So - MS58 Pb2
2.0460	CuZn20Al2	CW720R	-	-	-	-	-
2.0872	CuNi10Fe1Mn	-	-	-	-	-	-
2.0882	CuNi30Mn1Fe	CW354H	-	-	-	-	-
2.0936	CuAl10Fe3Mn2	-	-	-	-	-	-
2.0975	CuAl8Mn	-	-	-	-	-	-
2.0936	CuAl10Fe	CW306G	-	-	-	-	C45200 . B150 . B124
2.0975.04	CuAl10Ni	-	U - A - 10N	-	-	-	C95500
2.0978	CuAl11Fe6Ni6	CW308G	-	-	-	-	-
-	CuAl10Ni5Fe4	CW307G	-	CN102	-	-	C63000 B 171 - 95
2.1020	CuSn6	CW452K	-	-	-	-	-
2.1030	CuSn8	CW453K	-	-	-	-	-

Standard Progression of Surface Roughness (reference)

Arithmetical Average Roughness "Ra"			Max. Height "Ry"	10 Point Average Roughness "Rz"	"Ry - Rz" Reference Length	Conventional Finishing Symbols
Standard Progression	Cut-off Value λ_c (mm)	Modern Finishing Symbols	Standard Progression		l_n (mm)	
0.012	0.08	$0.012/0.2/$ $\nabla \sim \nabla$	0.05	0.05	0.08	
0.025	0.25		0.1	0.1		
0.05	0.8		0.2	0.2	0.25	
0.1			0.4	0.4		
0.2			0.8	0.8		
0.4	0.8	$0.4/1.6/$ $\nabla \sim \nabla$	1.6	1.6	0.8	
0.8			3.2	3.2		
1.6			6.3	6.3		
3.2	2.5	$3.2/6.3/$ $\nabla \sim \nabla$	12.5	12.5	2.5	
6.3			25	25		
12.5	8	$12.5/25/$ $\nabla \sim \nabla$	50	50	8	
25			100	100		
50	-	$50/100/$ $\nabla \sim \nabla$	200	200	-	-
100			400	400		