

# Continuous-Cast Hardness Ratings

Copper Alloy UNS No.	Product Description	Hardness Type	Typical or Minimum	Hardness
C94300	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	45
C94100	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	50
C89520	Bismuth Tin Bronze	Brinell 500 kg load	Minimum	54
C84400	Leaded Semi-Red Brass	Brinell 500 kg load	Typical	55
C84800	Leaded Semi-Red Brass	Brinell 500 kg load	Typical	55
C89831	Bismuth Tin Bronze	Brinell 500 kg load	Typical	55
C89844	Bismuth Tin Bronze	Brinell 500 kg load	Typical	55
C93800	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	55
C97300	Nickel Silver Bronze	Brinell 500 kg load	Typical	55
C83600	Leaded Red Brass	Brinell 500 kg load	Typical	60
C83800	Leaded Red Brass	Brinell 500 kg load	Typical	60
C84200	Leaded Semi-Red Brass	Brinell 500 kg load	Typical	60
C89833	Bismuth Tin Bronze	Brinell 500 kg load	Typical	60
C93400	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	60
C93500	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	60
C93700	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	60
C93900	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	63
C89835	Bismuth Tin Bronze	Brinell 500 kg load	Typical	65
C92200	Leaded Tin Bronze	Brinell 500 kg load	Typical	65
C93200	Leaded Tin Bronze	Brinell 500 kg load	Typical	65
C93600	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	65
C89320	Bismuth Tin Bronze	Brinell 500 kg load	Typical	70
C90300	Tin Bronze	Brinell 500 kg load	Typical	70
C92300	Leaded Tin Bronze	Brinell 500 kg load	Typical	70
C89325	Bismuth Tin Bronze	Brinell 500 kg load	Typical	73
C85700	Leaded Yellow Brass	Brinell 500 kg load	Typical	75
C90500	Tin Bronze	Brinell 500 kg load	Typical	75
C92900	Leaded Nickel-Tin Bronze	Brinell 500 kg load	Typical	75
C92700	Leaded Tin Bronze	Brinell 500 kg load	Typical	77
C92500	Nickel-Phosphor Bronze	Brinell 500 kg load	Typical	80
C94000	High-Leaded Tin Bronze	Brinell 500 kg load	Typical	80
C94800	Leaded Nickel-Tin Bronze	Brinell 500 kg load	Typical	80
C97600	Nickel Silver Bronze	Brinell 500 kg load	Typical	80
C91600	High Tin Bronze	Brinell 500 kg load	Typical	85
C94700	Nickel-Tin Bronze	Brinell 500 kg load	Typical	85
C86400	Manganese Bronze	Brinell 500 kg load	Typical	90
C90800	Tin Bronze	Brinell 500 kg load	Typical	95
C90810	Tin Bronze	Brinell 500 kg load	Typical	95
C91700	High Tin Bronze	Brinell 500 kg load	Typical	95
C90700	Tin Bronze	Brinell 500 kg load	Typical	102
C87850	Silicon Brass	Brinell 500 kg load	Minimum	103
C91000	Tin Bronze	Brinell 500 kg load	Typical	105
C92800	Leaded Tin Bronze	Rockwell "B"	Minimum	72*
C95300	Aluminum Bronze	Brinell 3000 kg load	Typical	125
C95200	Aluminum Bronze	Brinell 3000 kg load	Typical	125
C86500	Manganese Bronze	Brinell 3000 kg load	Typical	130
C97800	Nickel Silver Bronze	Brinell 3000 kg load	Typical	130
C95300HT	Aluminum Bronze	Brinell 3000 kg load	Typical	132
C91100	High Tin Bronze	Brinell 3000 kg load	Typical	135
C95600	Nickel-Aluminum Bronze	Brinell 3000 kg load	Typical	140

\*Brinell equivalent 114 (500 kg load). Note: HT = heat treated.



## Continuous-Cast Hardness Ratings (continued)

Copper Alloy UNS No.	Product Description	Hardness Type	Typical or Minimum	Hardness
C96400	Copper-Nickel	Brinell 3000 kg load	Typical	140
C99500	Special Alloy	Brinell 500 kg load	Typical	145
C86700	Manganese Bronze	Brinell 3000 kg load	Typical	155
C95800	Nickel-Aluminum Bronze	Brinell 3000 kg load	Typical	159
C91300	Tin Bronze	Brinell 3000 kg load	Typical	160
C95400	Aluminum Bronze	Brinell 3000 kg load	Typical	170
C95410	Aluminum Bronze	Brinell 3000 kg load	Typical	170
C95400HT	Aluminum Bronze	Brinell 3000 kg load	Typical	177
C95410HT	Aluminum Bronze	Brinell 3000 kg load	Typical	177
C86200	Manganese Bronze	Brinell 3000 kg load	Typical	180
C94700HT	Nickel-Tin Bronze	Brinell 3000 kg load	Typical	180
C95510 (AMS 4880)	Nickel-Aluminum Bronze	Brinell 3000 kg load	Minimum	192
C95500	Nickel-Aluminum Bronze	Brinell 3000 kg load	Typical	208
C86300	Manganese Bronze	Brinell 3000 kg load	Typical	223
C95500HT	Nickel-Aluminum Bronze	Brinell 3000 kg load	Typical	228
C95900	Aluminum Bronze	Brinell 3000 kg load	Minimum	241
C95520HT	Nickel-Aluminum Bronze	Brinell 3000 kg load	Minimum	262
C96900HT	Nickel-Tin Bronze	Rockwell "C"	Minimum	32*
CONCAST380	Aluminum Bronze	Brinell 3000 kg load	Minimum	340

\*Brinell equivalent 301 (3000 kg load). Note: HT = heat treated.