

# Wrought Hardness Ratings

Copper Alloy UNS No.	Product Description	Temper	Hardness Type	Typical or Minimum	Hardness
C24000	Low Brass, 80%	H01, H02, H04	Rockwell "B"	Typical	H01-55, H02-70, H04-82
C26000	Cartridge Brass, 70%	H01, H02, H04	Rockwell "B"	Typical	H01-55, H02-70, H04-82
C31400	Leaded Commercial Bronze	H02	Rockwell "B"	Typical	61
C31600	Leaded Commercial Bronze (nickel-bearing)	H04	Rockwell "B"	Typical	61
C51000*	Phosphor Bronze 5% A	H04, H08	Rockwell "B"	Typical	87
C52100*	Phosphor Bronze 8% C	H04	Rockwell "B"	Typical	93
C53400	Phosphor Bronze B-1	H04	Rockwell "B"	Typical	86
C54400	Phosphor Bronze B-2	H04	Rockwell "B"	Typical	80
C63000	Nickel Aluminum Bronze	HR50, TQ50	Brinell 3000 kg load	Min. to Max.	187-248
AMS 4590-C63020*	Nickel Aluminum Bronze	TQ50	Rockwell "C"	Min.	26
C64200*	Aluminum Bronze	HR50	Rockwell "B"	Min. to Max.	65-100
C64210*	Aluminum Silicon Bronze	HR50	Rockwell "B"	Min. to Max.	65-100
C65100*	Low-Silicon Bronze B	H02, H04, H06	Rockwell "B"	Min. to Max.	60-95
C67300	Manganese Bronze	H02	Rockwell "B"	Min.	65
C67600	Manganese Bronze	H02, H04	Rockwell "B"	Typical	90
C69400	Silicon Red Brass	H02, H04	Rockwell "B"	Typical	95
C69430	Silicon Red Brass	H02, H04	Rockwell "B"	Typical	95

\*Lead-free replacement alloy.

# Wrought Machinability Ratings

Copper Alloy UNS No.	Product Description	Machinability
C31400	Leaded Commercial Bronze	80
C31600	Leaded Commercial Bronze (nickel-bearing)	80
C54400	Phosphor Bronze B-2	80
C53400	Phosphor Bronze B-1	70
C67300	Manganese Bronze	70
C64200*	Aluminum Bronze	60
C64210*	Aluminum Silicon Bronze	60
C67600	Manganese Bronze	60
C24000	Low Brass, 80%	30
C26000	Cartridge Brass, 70%	30
C63000	Nickel Aluminum Bronze	30
C65100*	Low-Silicon Bronze B	30
C69400	Silicon Red Brass	30
C69430	Silicon Red Brass	30
C51000*	Phosphor Bronze 5% A	20
C52100*	Phosphor Bronze 8% C	20
AMS 4590-C63020*	Nickel Aluminum Bronze	

\*Lead-free replacement alloy.

