

Continuous-cast application cross reference

Application	Recommended alloys (copper alloy UNS no.)						
acid resisting applications	C93800						
acid-resistant pumps	C95200						
air actuators	C83600						
air line fittings	C84800						
air/gas/water fittings	C83800						
aircraft components	C95500						
applications requiring acid resistance to sulfite fluids	C93700						
automotive fittings	C93200						
automotive synchronizer rings	C92500						
backing for babbitt-lined bearings	C93500						
backs for lined bearings	C89320	C93600					
backs for lined journal bearings for locomotives	C93800						
backs for lined journal bearings for passenger cars	C93800						
bearing cage blanks	C86400						
bearing liners	C95200						
bearing segments for steel industry	C83600	C95300	C95400				
bearings	C86400	C86700	C90300	C90500	C90700	C90810	C91000
	C91100	C91300	C91600	C92200	C92300	C92700	C93200
	C93400	C93500	C93700	C93800	C93900	C94700	C94800
	C95200	C95400	C95410				
bearings for cranes	C93200						
bearings for heavy loads and relatively slow speeds	C90700						
bearings plates	C93700						
bearings requiring abrasion resistance /good ductility/retention of hardness at moderate temperatures	C95510						
bells	C91300						
boat parts	C84400	C86200	C86300	C86400	C86500		
brackets	C86200	C86300	C86500	C86700	C93700		
bridge pins	C86300						
bushings	C83600	C83800	C84200	C86200	C86300	C86400	C89325
	C90300	C90500	C91100	C91300	C91600	C92200	C92300
	C92700	C92800	C93200	C93400	C93700	C95200	C95400
	C95410	C95500	C95510	C95800			
bushings for corrosion/lubrication/pressure	C93600						
bushings for high speed and heavy pressure	C93700						
cable connectors	C95600						
cam bushings for diesel engines	C89320	C93600					
cams	C86200	C86300	C86400	C86700	C92900		
cases for dead bolt locks	C84400						
circuit breaker parts	C94700						
clamps	C86200	C86300	C86500	C90500			
cocks	C84800						
cold rolling metal dies and guides where a hardness minimum is specified	C380						
compressors	C86500						
connectors	C90500	C95300					
cooling equipment	C83600	C84400	C92200				
corrosion-resistant castings	C92800	C93400	C93500	C93700			
corrosion-resistant/pressure-tight castings	C89831	C89833					
couplings	C83600	C84200					
covers for marine hardware	C86300	C86400	C86500	C95200	C95300	C95400	C95500
	C95800						
crank shafts	C93700						
crankshaft main bearings	C89320	C93600					
cryogenic valves	C92200						
dead bolt locks	C84400						
deep well pump bowl bushings	C89320						
deep well pump line shaft bearings	C89320	C93600					
die components	C95900						

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Application	Recommended alloys (copper alloy UNS no.)						
diesel engine wrist pin bushings	C93200						
door hardware for prisons	C84400	C85700	C86500				
elbows	C84200	C95800					
elbows/flanges/pump bodies/valves used for sea water corrosion resistance	C96400						
electric motor bearings	C89320	C93600					
electrical components	C86300	C86400					
electrical equipment	C86400						
electrical hardware	C86500	C95200	C95500				
electrical parts	C99500						
expansion bearings	C90500						
faucets	C83600	C84800	C87850	C89835			
feeding mechanisms	C94700						
finishing dies for wood pulp industry	C90500						
fittings	C84800	C86400	C86700	C91600	C93200	C96400	
fittings for dairy and food processing	C97800						
fittings for oil lines	C84200						
fittings used to 550 °f	C92200						
fittings/valves for potable water	C89844						
fixtures	C83600	C84400	C86400				
flanges	C85700						
flow monitor valves	C93600						
forging press toggle lever bearings	C93200						
forming dies for wood pulp industry	C86300	C86500					
frames	C86200	C86300	C86500				
freight car bearings	C93800						
fuel pump bushings	C93200						
furnaces	C83600						
gas line fittings	C84800						
gear blanks	C90300	C90500					
gear boxes	C90700						
gear components	C94800						
gears	C86200 C91700 C95200 C95900	C86300 C92200 C95300	C86500 C92300 C95400	C90500 C92500 C95410	C90700 C92700 C95500	C90810 C92900 C95600	C91600 C94700 C95800
gears for mining equipment	C99500						
general hardware	C84200	C84800					
general purpose bushings	C93200						
general service bearings for moderate pressure	C93800						
general utility bearings	C89320						
general-service bearings	C92900						
gibs	C86300	C95900					
glands	C95500						
glass molds	C95500						
government fittings	C95400	C95500					
guide bushings for piston rods	C89320	C93600					
guide bushings for valves	C89320	C93600					
gun mounts	C86200	C95200					
gun slides	C95200						
handgun recoil mechanisms	C95500						
handles for dental equipment	C83600						
hardware	C83600	C83800	C84400	C84800	C97600	C97800	
heating equipment	C83600	C84400	C92200				
heavily loaded worm gears	C95400						
heavy construction equipment	C90300	C90500					

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Application	Recommended alloys (copper alloy UNS no.)				
heavy load/relatively slow-speed bearings	C91700				
heavy-duty bearings	C92700				
high pressure hydraulic equipment	C92300				
high speed/heavy load bearings	C93700				
high-pressure steam equipment	C92300				
high-speed bearings for light loads	C94000	C94300			
high-speed/high-pressure bearings	C89325	C89831			
high-speed/light-load bushings	C93500				
high-speed/light-to-medium-pressure bushings	C94000	C94300			
high-strength clamps	C95200	C95300	C95400		
high-strength machine parts	C86200	C86300			
high-temperature applications	C95300				
hollow conductors	C91100				
hooks	C86200	C86300	C86500		
hot mill guides	C95200	C95500			
housings	C89835				
hydrant parts	C95200				
hydraulic cylinder parts	C86300				
hydraulic gland seals	C89320	C93600			
hydraulic press main lining	C93200				
hydraulic press stuffing box	C93200				
hydraulic seal components	C95510				
impellers	C83600	C89831	C89833	C93700	
impellers for mine water	C92900				
industrial centrifuges	C93800				
insert bearings	C93200				
landing gear bushings and bearings	C95510				
landing gear parts	C95400	C95500			
large bearings for ships	C93700	C93800			
large gear parts	C95200				
large hold-down screws	C83600	C95300	C95400		
large valve stems	C86300				
lead screw nuts	C92700				
lever arms	C86400	C86500	C86700		
light-duty gears	C86400				
lightning protection	C83600				
linkage bushings for presses	C93200				
locomotive bearing parts	C93600				
low pressure fittings	C84400				
low pressure valves	C83600	C84200	C84800		
low-friction/moderate pressure bushings	C93800				
machine parts	C93800	C95400	C95500		
machine tool bearings	C93200				
machinery	C86500	C95800			
machinery parts	C86400	C86700	C93200	C93700	C94800
machinery parts (substituted for steel and malleable iron)	C86500				
machinery parts requiring high strength	C86500				
main bearings for presses	C89320	C93600			
main spindle bearings	C93200				
marine applications	C95500				
marine castings	C86200	C92200			
marine engines	C95200				
marine equipment	C95300				
marine fittings	C86400				
marine furniture	C97600				

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Application	Recommended alloys (copper alloy UNS no.)						
marine hardware	C84400 C95800	C85700	C86300	C86400	C86700	C95200	C95500
marine products	C83600	C87850					
marine racing propellers	C86200						
mechanical components where aesthetics are important	C85700						
medium-pressure hydraulic equipment	C92200						
medium-pressure steam equipment to 550 °F	C92200						
mild acidic applications	C93500						
mild alkali applications	C95200						
mining machine parts	C95300						
moderate-duty gears	C86700						
motion translation devices	C94800						
musical instrument components	C97800						
musical instruments	C84400	C87500	C86400	C95500			
nozzles	C94700						
nuts	C92200 C93700	C95200	C95400	C95800	C90500	C91600	C92300
nuts for transducers	C84400						
ornamental castings	C97300	C97600	C97800	C92200			
ornamental fixtures	C83600	C84400					
ornamental hardware	C85700						
outboard marine components	C99500						
parts for boats	C83600						
parts for steel maintenance	C93700						
pawl	C95400						
piano keys	C86400	C95500	C97600				
pickling baskets	C95300	C95410					
pickling equipment	C95200	C95500	C95800				
pickling hooks	C95300	C95400	C95410				
pickling tanks	C95200						
pipe fittings	C83600	C84200	C84400	C89835			
piston cylinders	C94700						
piston guides	C95500						
piston pin bearings	C89320	C93600					
piston rings	C90300	C90500	C91000	C91000	C91300	C91600	
plugs	C84200						
piston rings	C90300	C90500	C91000	C91000	C91300	C91600	
plugs	C84200						
piston rings	C90300	C90500	C91000	C91000	C91300	C91600	
plugs	C84200						
piston rings	C90300 C92300	C90500 C92800	C91000	C91000	C91300	C91600	C92200
plugs	C84200						
plumbing	C84200						
plumbing castings	C89520						
plumbing fittings	C84800	C87850					
plumbing fixtures	C84800	C83800					
plumbing goods	C89835						
plungers	C95200						
press dies	C86200						
pressing dies for wood pulp	C86500						
pressure blocks for steel industry	C83600	C95300	C95400				
pressure-tight castings	C93700						
printing presses	C83600						
propeller blades	C95800						
propeller hub	C95800						

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Application	Recommended alloys (copper alloy UNS no.)						
propeller wheels	C99500						
propellers	C86300	C86400	C86700	C95200			
propellers for salt and fresh water	C86500						
pump bodies	C90300	C90500	C92900	C93900	C96400		
pump bodies for acid mine water	C93800						
pump components	C89835						
pump fixtures	C83600	C83800	C84400	C86400	C93200	C96400	
pump fluid ends	C95500						
pump impellers	C90300 C93400	C90500 C93500	C91600	C92200	C92300	C92700	C93200
pump impellers for acid mine water	C93800						
pump impellers for mine water	C93900						
pump parts	C83600	C92300	C95200	C95400			
pump pistons	C92700						
pump rods	C95200						
pump sleeves	C89320	C93600					
pumps	C83600	C89831	C89833	C93200	C93700	C93800	C97600
pumps used to 550 °f	C92200						
railroad applications	C93800	C94000	C94300				
railroad catenary fittings	C83800						
railroad engine casings	C93800						
restaurant equipment	C90700						
rings	C83600						
rod bushings	C89320	C93600					
roll neck bearings	C93200						
roller bearings	C86400						
rolling mill bearings	C89320	C93200	C93600				
rudders	C86200	C86300	C86500				
sanitary fittings	C97600						
screw down nuts	C86300	C86200	C86400	C86700			
seal rings	C90500						
seals	C89320	C93600					
sewage treatment applications	C95500						
shafts	C86200	C90810	C95800				
shift forks	C94700						
ship building	C95400	C95500	C95800				
ship trim	C85700						
sleeve bushings	C89320						
sleeve bushings (for cranes, etc.)	C93600						
slide bars	C93400						
slide guides for steel mills	C93700						
slow-speed/heavy-load bearings	C86300						
small gears	C83600	C84200	C89835				
small pump castings	C84200						
soft bushings	C94000	C94300					
soft metal applications	C94000	C94300					
spacer bushings	C89320						
spacer bushings (for pumps, etc.)	C93600						
speed reducers	C90700	C90800					
spur gears	C95400	C95410					
statuary	C97300						
steam castings	C91600						
steam fittings	C90300	C90500	C92700	C96400			
steel mill bushings	C93600						
stops	C84800						

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Application	Recommended alloys (copper alloy UNS no.)						
stripped nuts	C95300						
structural castings	C92300	C94800					
structural parts	C86200						
struts	C86200	C86300	C86500				
stuffing box nuts	C95500						
switches	C86300	C86400					
swivel	C90300						
tees	C84200						
terminals	C95600						
thrust bearings	C93400						
thrust block	C94100						
thrust pads	C95200						
thrust washers	C93200						
transducer housings	C83600						
trowels for cement working	C83600						
trunnion bearings	C93200						
unions	C84200						
valve bodies	C83600 C95300	C90300 C95400	C90500 C95500	C90700 C95800	C91300	C92300	C95200
valve bodies for the water industry	C84400						
valve bodies for the water meter industry	C83600						
valve bodies for water	C87850						
valve components	C92200	C94700	C95410	C95500			
valve guides	C95400	C95500					
valve seat	C84400	C95200	C95400	C95500			
valve stems	C86200	C86400	C86700	C95600	C99500		
valves	C83600 C97300	C83800 C97600	C84400 C97800	C90300	C90500	C95200	C95400
valves for the water meter industry	C83600						
valves for water meters	C84400	C92200					
valves in contact with sea water	C95800						
washers	C84800	C89320	C93200	C93400			
washers for engines	C93700						
water conditioners	C90500						
water meter cases	C87850						
water pump bushings	C93200						
water pump impellers	C89835						
wear guides	C94700						
wear plates	C92900	C95200	C95500	C95800			
wear rings for forming dies for wood pulp industry	C86300						
wear rings for pressing dies for wood pulp industry	C86200	C86500					
wearing material for rod bushings	C93800						
wearing material for shoes	C93800						
wearing material for wedges	C93800						
weld guns	C86500	C95400					
welding jaws	C95200	C95300	C95500				
window hardware	C85700	C86400	C95500	C97600			
worm drives	C95900						
worm gears	C86200 C95400	C90500	C90700	C90800	C90810	C91700	C92900
worm wheels	C90700	C91700	C95200	C95500	C95800		
worms	C95200	C95410	C95500	C95600	C95800		
wrist pin bushings	C89320	C93600					