Extruded or cast and drawn typical uses

Copper alloy UNS no.	Product description	Architecture	Automotive	Builders hardware	Consumer	Electrical	Fasteners	Industrial	Marine	Ordnance	Other	Plumbing
C14500	Tellurium copper	fire protection				electrical connectors, motor parts, soldering copper, switch parts, transistor bases		forgings, furnace brazed articles, screw machine products, soldering tips, welding torch tips				fixtures, plumbing fittings, sprinkler heads
C23000	Red brass 85%	etching parts, trim, weather strip		kick plates	badges, coinage, compacts, costume jewelry, dials, fire extinguisher cases, lipstick contain- ers, medallions, nameplates, plaques, rouge boxes, tokens, zippers	conduit, rotor bars (AC motors), screw shells, sockets	eyelets, fasteners	condensor tubes, fire ex- tinguishers, flexible metal hose, heat exchanger shells, heat exchangers, pickling crates, pump cylinder liners, radiator cores, tags, tubing for heat exchangers, tubing for instrumentation			fire hose couplings	fittings, j-bends, pipe, pipe nipples, pipe service lines, pump lines, service lines, traps
C24000	Low brass 80%	medallions, ornamental components, spandrels		decorative panels	clock dials, musical instrument parts, plaques	battery caps, rotor bars for AC motors		flexible hose, flexible hose bellows, pump lines, welding wire			tokens	
C26000	Cartridge brass 70%	grillwork	odometer contacts, heater cores, thermostats, electrical connectors, radiator cores, radiator tube, radiator tanks, tanks	locks, push plates, finish hardware, kick plates, decorative hardware, door knobs, hinges	snaps, planters, fireplace screens, etched articles, bird cages, coinage, chain links, pen/pencil inserts and clips, syringe parts, watch parts, costume jew- elry, buttons, shells, electrical sockets, lamps	terminal connectors, flashlight shells, lamp fixtures, reflectors, screw shells	pins, rivets, fasteners, grommets, eyelets, screws	air pressure conveyer systems, sound proofing equipment, springs, chain, bead chain, tubing for in- struments and machines, heat exchangers, pump cylinders, wire screens, pumps, liners, power cylinders		ammunition cartridge cases, mechanical housings for lighters, mechanical housings for ammunition, ammunition	stencils, washers	fittings, bathroom fixtures, plumbing accesso- ries, faucet escutch- eons, traps, plumbing brass goods
C31400	Leaded commercial bronze			door knobs		electrical plug type connectors, connectors for wire and cable	nuts, screws	pickling crates, pickling fixtures, pickling racks, screw machine parts				
C31600	Leaded commercial bronze (nick- el-bearing)			hardware		connectors	fasteners, nuts, screws	screw machine parts				
C46400	Naval brass, uninhibited			lock pins		precision shipboard equipment	bolts, nuts, rivets	aircraft turnbuckle barrels, balls, bearings, bushings, condenser plates, dies for golf ball production, heat exchanger tubes, hub cones, pressure vessels, structural uses, valve stems, welding rod	decorative fittings, hardware, propeller shafts, shafting, turnbuckles	missile components	baffle plates and flanges	fittings
C51000	Phosphor bronze 5% A	bridge bearing plates				resistance wire, fuse clips, electromechanical spring components, electrical flexing contact blades, electrical connectors, electronic connectors, wire brushes, switch parts, electronic and precision instrument parts	fasteners, cotter pins, lock washers	bourdon tubes, bellows, perforated sheets, chemical hardware, truss wire, springs, sleeve bushings, diaphragms, clutch disks, pressure responsive elements, beater bar, textile machinery, welding rods				

Extruded or cast and drawn typical uses continued

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Copper alloy UNS no.	Product description	Aerospace	Architecture	Automotive	Builders hardware	Consumer	Electrical	Fasteners	Industrial	Marine	Other	Plumbing
C52100	Phosphor bronze 8% C		bridge bearing plates		thermostat bellows	power conductor for electro-sur- gical pencil, coinage, cymbals	electronic connectors, electrical connectors, cold headed parts, electrical flexing contact blades, wire bettical flexing contact blades, wire brushes, switch parts, fuse clips	cotter pins, fasteners, heavy duty, lock washers	cold headed parts, thrust bearings, truss wire, pneumatic hammers, doctor blades, paper industry, bourdon tubing, well drill equip- ment, clutch disks, welding wire, diaphragms, beater bar, bellows, springs, helical extension, springs, helical torsion, clips, heavy duty, gears, pinions, textile machinery, perforated sheets, chemical hardware, springs, heavy duty, sleeve bushings	marine parts		
C53400	Phosphor bronze B-1								bushings, bearings, fasteners			
C54400	Phosphor bronze B-2						electrical connectors		bushings, gears, pinions, screw machine products, thrust washers, valve parts, sleeve bearings, thrust bearings, bearings, shafts			
C62400	Aluminum bronze 11%							nuts	bushings, cams, drift pins, gears, hydraulic bushings, support bushings, tie rods, valve balls, wear plates, welding wire			
C63000 (AMS 4640)	Nickel-alu- minum bronze								balls, bearings, bushings, cams, condenser tube for power stations and desalting units, corrosion resistant articles, gears, heat ex- changer flanges, hydraulic bushings for earth moving equipment, plunger tips, pump parts, pump shafts, shafting, structural members, tanks, valve balls, valve guides, valve seats, welded piping systems	nuts, pro- pellers, pump parts, bolts, ship propellers		faucets
C63020 (AMS 4590)	Nickel- aluminum bronze	bushings, gears							bearings, forming dies for roll bearings, hy- draulic bushings for earth moving equipment, valve balls, valve parts- cryogenic, dies			
C64200 (AMS 4634)	Aluminum bronze			valve guides, automobile engine			pole line hardware	bolts, nuts	cams, gears, valve bodies, valve components, valve stems	hardware		
C64210	Aluminum silicon bronze						pole line hardware		bushings, aircraft, valve bodies, valve stems, pickling equipment, bearings, high-strength/ corrosion-resistant chemical process equipment	nuts, bolts, lock washers, screws		
C65100	Low-silicon bronze B						conduit, pole line hardware, motor, rotor bars	bolts, cable clamps, cap screws, machine screws, nuts, rivets, u bolts, fasteners, screws	oil refinery plumbing tube, heat exchanger tube, welding rod, hydraulic pressure lines	hardware		
C67300	Manganese bronze							fasteners, lead screw nuts	bearings, bushings, drive shafts, gears/cams, idler pins, piston heads, propeller shafts, pump parts, seal rings, shaft bushings, sleeve bearings, spindles, thrust bearings, wear plates, clutch bearings	hardware, valve seats	connecting rods	
C67400	Manganese bronze								bushings, cams, chain guides, food conveyor chain, gears, shafts, wear plates		connecting rods	

Extruded or cast and drawn typical uses continued

Copper alloy UNS	Product							
no.	description	Aerospace	Automotive	Electrical	Industrial	Marine	Oil and gas	Other
C67410	Manganese bronze				bushings, cams, chain guides, food conveyor chain, gears, shafts, wear plates			connecting rods
C67600	Manganese bronze				gate valve stems, valve balls, welding rod			
C69300	Lead-free brass		fluid connectors, sensor bodies, thermostat parts					
C69400	Silicon red brass				valve stems			
C69430	Silicon red brass				valve stems			
C72900 (AMS 4596)	Copper nickel-tin bronze	landing gear bushings and bearings, control surface and actuator bushings and bearings, wing flap bearings, wheel bearings, brakes, door hardware, hydraulic actuators, valves, steering joints, helicopter controls, compression fit airframe fasteners, electronic system connectors		connectors, contacts, controls, miniaturized sock- ets, relay elements, switches	springs, wire	marine components	bushings, bearings, drilling components, sucker rod, valve guide bushing couplings	
C72900 (AMS 4597)	Copper nickel-tin bronze	landing gear bushings and bearings, control surface and actuator bushings and bearings, wing flap bearings, wheel bearings, brakes, door hardware, hydraulic actuators, valves, steering joints, helicopter controls, compression fit airframe fasteners, electronic system connectors		connectors, contacts, controls, miniaturized sock- ets, relay elements, switches	springs, wire	marine components	bushings, bearings, drilling components, sucker rod, valve guide bushing couplings	
C72900 (AMS 4598)	Copper nickel-tin bronze	landing gear bushings and bearings, control surface and actuator bushings and bearings, wing flap bearings, wheel bearings, brakes, door hardware, hydraulic actuators, valves, steering joints, helicopter controls, compression fit airframe fasteners, electronic system connectors		connectors, contacts, controls, miniaturized sock- ets, relay elements, switches	springs, wire	marine components	bushings, bearings, drilling components, sucker rod, valve guide bushing couplings	