Qingdao Casting Quality Industrial Co., Ltd

Casting Material: Aluminum Bronze C95800

C95800 Nickel Aluminum Bronze is the highest strength standard copper based alloy. All aluminum bronzes can be heat treated, further increasing tensile strengths. C95800 is Copper Alloy UNS number in ASTM A148 and ASMT B805 for casting purpose. This material is mostly suitable for large size castings, particularly high in strength, and good performances in corrosion resistance and abrasion resistance.

ASTM B148 -18 Standard Specifications for Aluminum-Bronze Sand Castings

ASTM B505 / B505M - 18 Standard Specification for Copper Alloy Continuous Castings

Nickel Aluminum Bronze C95800 Application:

Machinery parts.

Valve body, valve disc.

Bushing, Gears.

Pump propeller blades, casing, section bell, Impeller, Pump Bowl.

Wear Plates.

Pipe Fittings.

Marine hardware, ship propeller.

Chemical Industry.

Nickel Aluminum Bronze C95800 Casting Chemical Composition Requirements and Mechanical Property:

Copper: 79.0 min

Aluminum: 8.5-9.5

Iron: 3.5-4.5

Manganese: 0.8-1.5

Nickel: 4.0-5.0

Silicon: 0.10 max

Lead: 0.03 max

Iron content shall not exceed the nickel content

As cast or temper annealed condition:

Tensile Strength: 85 ksi(585 Mpa)

Yield Strength: 35 ksi (240 Mpa) min

Elongation in 2in. or 50.8mm: 15%min

Reduction of area: 35% min

Hardness (3000kg load): not required.

Nickel Aluminum Bronze C95800 Casting Heat treatment process:

For better carrion resistance in seawater application, castings in copper alloy UNS No C95800 may be given a temper anneal heat treatment at 1250+/-50°F [675+/-10°C] for 6 hour minimum, generally followed by air cooling. Cooling shall be by the fastest means possible that will not cause excessive distortion or cracking, propeller castings shall be exempt from this requirement

Corrosion inhibiting heat treatment is option.

Similar or Equivalent Specification

GB/T ZCuaL9Fe4Ni4Mn2; BS1400 Grade AB2; DIN 1714 Grade GB-CuAl9Ni, JIS H5114 Grade AlBC3