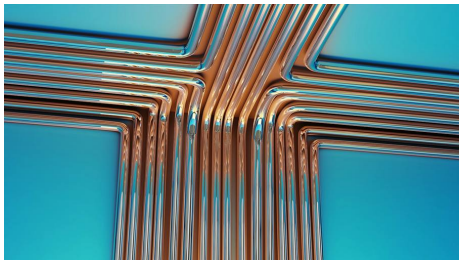
CUPRO NICKEL Advanced Materials. Engineered for Performance.

Cupro Nickel 66/30/2/2 (C71640)



Cupro Nickel | UNS: C71640 | EN: CuNi30Fe2Mn2 | Common name: 66/30/2/2

The desalination variant of 70/30. Raising iron and manganese to about 2% each stabilises the protective film under high velocity, sand-laden and partly deaerated brine, which is exactly the duty inside MSF evaporator heat recovery and reject sections. Where 70/30 tubes thin at the inlet ends, C71640 holds.

Stock status: Project supply - Typical lead time: 6 - 10 weeks on enquiry

Key features

- Iron and manganese enhanced film stability for sand-laden brine
- Highest allowable velocity of the cupro nickel family
- Standard retube material for MSF desalination plant
- Supplied to EEMUA 144 / 146 with EN 10204 3.1 certification

Available forms & sizes

Form	Size range
Seamless Pipes & Tubes	1/8" - 12" NB seamless, 6 - 108 mm OD tube, 0.8 - 6 mm wall
Plates	3 - 50 mm thk condenser plate and tube sheet (ASTM B171)
Fittings	1/2" - 24" butt weld elbows, tees, reducers and stub ends
Flanges	1/2" - 24", 150# - 300#, slip-on and weld neck

Chemical composition (%)

Element	Min	Max
Cu	Remainder	-
Ni	29.0	32.0
Fe	1.70	2.30
Mn	1.50	2.50
Pb	-	0.02

Mechanical properties

Property	Value	Unit
Yield Strength (0.2%)	170 min (annealed)	MPa

Property	Value	Unit
Tensile Strength	415 min (annealed)	MPa
Elongation	28 min	%
Hardness	90 - 120	HV

Physical properties

Property	Value	Unit
Density	8.90	g/cm3
Thermal Conductivity	27	W/m.K
Max Service Temperature	400	C
Max seawater velocity	5.0	m/s

Standards

ASTM B466 / B467, ASTM B111 (condenser tube), EN 12451, EEMUA 144 / 146, EN 10204 3.1 / 3.2

Equivalent grades

C71640, CuNi30Fe2Mn2, 66/30/2/2

Industries served

Desalination, Water & Desalination, Power Generation, Marine, Offshore

Typical applications

- MSF evaporator heat recovery and reject section tubing
- High velocity brine and seawater lines
- Condenser tubing in sand-laden intakes
- Retube programmes replacing thinned 70/30 bundles

Live datasheet