



**Standard Denomination:
715, C71500, 70 / 30**

Cu-Ni alloys are widely used for marine applications due to their excellent resistance to seawater corrosion, high inherent resistance to biofouling and good fabrication properties.

They have provided reliable service for several decades while offering effective solutions to today's technological challenges.

This alloy has a very good abrasion resistance.



Copper Nickel Rod & Bar

FEASIBLE DIMENSION

Outside Diameter	0.750" to 2.250"	Over 2.250" to 3.500"	Over 3.500" to 6.125"
Length	6 to 20 ft.	8 to 12 ft.	8 to 10 ft.

CHEMICAL COMPOSITION

Alloy	Cu (%)	Ni (%)	Pb (%)	Fe (%)	Zn (%)	Mn (%)	P (%)	C (%)	S (%)
C 71500	65.0 Min.	29.0 to 33.0	0.02 Max.	0.40 to 1.0	0.50 Max.	1.0 Max.	0.02 Max.	0.05 Max.	0.02 Max.

MECHANICAL PROPERTIES

Alloy	Temper	Tensile Strength	Yield Strength	Grain size (mm)	Elongation %
C 71500	060	45 Min	18 Min.	0.010 - 0.070	30 Min.

PHYSICAL PROPERTIES

PROPERTIES	UNITS	C 71500
MELTING POINT (LIQUIDUS)	°F (°C)	2260 (1240)
MELTING POINT (SOLIDUS)	°F (°C)	2140 (1170)
DENSITY (TO 20°C)	LB/CU, IN	0.323
COEFICIENT OF THERMAL EXPANSION	PER °F FROM 68 TO 572	9.5 x 10 ⁻⁶
THERMAL CONDUCTIVITY	BTU/SQ.FT/FT/HR/°F TO 68 °F	17
ELECTRICAL RESISTIVITY (ANNEALED)	OHMS (CIRC.MIL/FT) TO 68 °F	225
ELECTRICAL CONDUCTIVITY (ANNEALED)	% IACS TO 68 °F	4.6
THERMAL CAPACITY (SPECIFIC HEAT)	BTU/LB/°F TO 68 °F	0.09
MODULUS OF ELASTICITY (TENSION)	KSI	22000
MODULUS OF RIGIDITY	KSI	8300
ANNEALED TEMPERATURE	°F (°C)	1100-1500 (600-825)

SUITABILITY FOR BEING JOINED BY

Alloy	Soldering	Brazing	Oxyacetylene Welding	Carbon Arc Welding	Gas Shielded Arc Welding	Coated Metal Arc Welding	Resistance Welding		
							Spot	Seam	Butt
C 71500	Excellent	Excellent	Good	Not recommended	Excellent	Excellent	Excellent	Excellent	Excellent

Applicable Standards

ASTM B-151 ASME SB - 151 MIL-C-15726F (1)

SALES BRANCHES AND OFFICES: We export to North, Central and South America, the Caribbean, Europe and Asia.

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