TECHNICAL SHEET

CuNi30



No.:000033

Copper-Nickel Alloy

Classification

AWS A5.7 ERCuNi

DIN EN1044 / DIN 8513 / ISO 17672 /

Chemical Composition: %

CuNi30

Cu	Ni	Si	Mn	Fe	Ti	Other
Bal.	29.0-32.0	0.1-0.25	1.0	0.4-0.75	0.2-0.5	0.5

Mechanical and physical properties

Melting range: 1180 - 1240 °C Specific gravity: 8.9 g/cm³ Tensile strength: 420 N/mm² Brinell hardness: 80-115HB

Elongation: 15-36 %

Joining process

Filler metal used for MIG, TIG, oxyacetylene and submerged arc welding of wrought or cast copper-nickel

Description and Applications

CuNi30 is known for its strength, workability, formability, and weldability. The addition of nickel strengthens the weld metal and improves the corrosion resistance, particularly against salt water. The inclusion of controlled quantities of iron also gives the alloy an extraordinary resistance to general corrosion and stress corrosion cracking, as well as to erosion. It also protects against impingement due to turbulent water containing air bubbles and silt flowing at high velocities. The weld metal has good hot/cold ductility. Welding is done in all positions. When welding with the GTAW and GMAW processes, no preheat is required.

Availability

Rods: ϕ 1.5-5.0mm Max.Length: 1000mm

Wire: 0.8, 1.0, 1.2, 1.6mm on spools D300

Strip

Other dimensions are available upon request