

TECH-ROD 190

I. **DESCRIPTION:** Tech-Rod 190 is used for welding materials of nickel-copper alloys to themselves (such as ASTM, B126, B163, B164, B165--all of which have UNS Number N04400). They also can be used for overlay welding as well as for welding of clad steels where nickel-copper surfacing is required. Dissimilar welding applications include joining nickel 200 and copper-nickel alloys. This filler metal is widely used in marine applications because of its excellent resistance to the corrosive effects of seawater.

II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.11 Class ENiCu-7.

III. **CHEMICAL COMPOSITION**

Carbon	.03
Manganese	3.2
Silicon	.9
Iron	.95
Sulfur	.006
Phosphorus	.009
Aluminum	.05
Titanium	.65
Copper	28.2
Nickel	67.6

MECHANICAL PROPERTIES

Tensile Strength	
75,500 PSI	520 MPA
Yield Strength	
52,000 PSI	360 MPA
Elongation	39%

IV. **WELDING PARAMETERS**

Direct Current
Electrode + Ve

AMPERAGES:

3/32"	65-75
1/8"	90-105
5/32"	120-135
3/16"	135-155

(For vertical welding amperages are to be reduced by 10 to 15 amps)

V. **PACKAGES AVAILABLE:**

3/16"-10# can, 5/32"-10# can, 1/8"-10# Can, 3/32-8# can