

TECH-ROD 112

- I. **DESCRIPTION:** Tech-Rod 112 is a covered electrode which is used to weld nickel-chromium-molybdenum alloys. It is also used extensively in overlay cladding where similar chemical composition is required on the clad side. Its applications include dissimilar joints between nickel-chromium-molybdenum alloys to either stainless steels, carbon, or low alloy steels. These electrodes are used in applications where the temperature ranges from cryogenic up to 1800°F.
- II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.11 Class ENiCrMo-3. Approved by Canadian Welding Bureau.

<u>CHEMICAL COMPOSITION</u>		<u>MECHANICAL PROPERTIES</u>	
Carbon	.03	Tensile Strength	
Manganese	.35	114,500 PSI	790 MPA
Silicon	.34		
Iron	1.5	Yield Strength	
Sulfur	.005	89,500 PSI	620 MPA
Phosphorus	.009		
Chromium	21.5	Elongation	34%
Molybdenum	9.2	Impact Strength	
Columbium+Tantalum	3.55	@-196°C	55 ft/lbs
Aluminum	.1	Lateral Expansion	42 Mils
Titanium	.09		
Nickel	Balance		

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