

# TECH-ROD 320LR

- I. **DESCRIPTION:** Tech-Rod 320LR is similar in composition to Tech-Rod 320, with carbon, silicon, phosphorus, and sulfur controlled to lower limits and columbium and manganese kept to a narrower range. This composition is designed to reduce the possibility of microfissuring; however, low heat input is advisable for welding.
- II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.4 Class E320LR-16.

III. **CHEMICAL COMPOSITION**

Carbon	.024
Manganese	2.05
Silicon	.24
Chromium	19.8
Nickel	33.9
Molybdenum	2.4
Columbium + Tantalum	.27
Copper	3.55
Sulfur	.011
Phosphorus	.014
Iron	Balance

**MECHANICAL PROPERTIES**

<b>Tensile Strength</b>	
85,000 PSI	590 MPA
<b>Yield Strength</b>	
57,000 PSI	390 MPA
<b>Elongation</b>	34%

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