

DESCRIPTION

Executive 71T-12MJ is an all-position flux-cored wire designed for single or multi-pass applications that demand exceptional weld metal toughness. It maintains excellent impact toughness down to -50°F (-46°C) in the as-welded and typical post weld heat treated (PWHT) condition.

Executive 71T-12MJ also boasts a smooth arc with fast freezing slag and low spatter levels, characteristics shared with other executive flux-cored wires. Additionally, unlike many other products in the market, Executive 71T-12MJ supports an "H4" low-hydrogen designation

APPLICATIONS & FEATURES

Applications include off-shore oil components, shipbuilding, pressure vessels, structural and bridge fabrication and heavy equipment where exceptional charpy impact/low temperature toughness is required.

The precisely optimized chemical composition of the weld metal imparts exceptional mechanical properties, making it well-suited for even the most stringent industry specifications.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

| C | Mn | Si | P | S | Cu | Ni | Cr | Mo | V |
|--------------------------|----------------|-----------------------------|--------------|---------------------------|------------------------------------|------|------|------|-------|
| 0.04 | 1.42 | 0.51 | 0.01 | 0.01 | 0.01 | 0.42 | 0.03 | 0.01 | 0.005 |
| Tensile Strength: | 80,500 PSI min | Diffusible Hydrogen: | 3.21 ml/100g | Charpy Impact: | 111 ft-lb (150 J) at -50°F (-46°C) | | | | |
| Yield Strength: | 72,500 PSI min | Elongation: | 29% | Radiographic Test: | Acceptable | | | | |
| Tensile Strength: | 80,200 PSI min | Diffusible Hydrogen: | 3.21 ml/100g | Charpy Impact: | 71 ft-lb (96 J) at -50°F (-46°C) | | | | |
| Yield Strength: | 70,600 PSI min | Elongation: | 31% | Radiographic Test: | Acceptable | | | | |

*PWHT 1hr @ 1148°F (620°C)

TYPICAL WELDING PARAMETERS

| Diameter | Voltage | Amperage | Wire Feed Speed (in./min) | Stick-Out | Flow Rate (SCFH) | Shielding Gas |
|----------|---------|----------|---------------------------|------------|------------------|------------------------------|
| .045" | 21-23 | 160 | 200 | 5/8 - 3/4" | 40-50 | 75% Ar / 25% CO ₂ |
| | 24-26 | 225 | 310 | | | |
| | 27-29 | 275 | 400 | | | |
| .062" | 25-27 | 240 | 165 | 3/4" - 1" | 40-50 | 75% Ar / 25% CO ₂ |
| | 26-28 | 260 | 190 | | | |
| | 29-30 | 300 | 250 | | | |

STANDARD PACKAGING

Spools 44-lb plastic spools 2,640-lb pallet

CLASSIFICATION

AWS A5.20/ASME SFA A5.20 E71T-12MJ H4
 AWS A5.36(M) / ASME SFA-5.36(M) Class E71T12-M21A5(A4)/M21P5(P4)-CS2-H4
 CWB to CSA W48 Class E491T1-M21A5(P5)-CS2-H4
 Meets AWS D1.8 for Seismic Applications. ABS 4YSA H5

