



XTR 71T-1C -1M

A5.20 E71T-1M,1C 5.36 71T1-C1[M21]A0-CS1-H8

Description:

71T-1 is a rutile type flux cored carbon steel electrode, designed for welding of ASTM A36 and other 50kgf/mm² high tensile steel. An all-position welding wire typically for structural welding (Meets AWS D1.8 seismic lot waiver requirements), ship building, bridges, machinery, vehicles, offshore structures, and general fabrications. E71T-1C is the most widely used titania type flux cored wire for all position welding with CO₂ shielding gas. The deposition rate is higher than solid wire and equivalent manual metal arc coated electrodes, therefore highly efficient welding can be performed with this wire. This product is shipped in an aluminum vacuum pack, assuring proper diffusible hydrogen.

Typical Applications:

XTR 71T-1 is baked to provide low moisture (3ml~5ml), increased feedability for long runs, excellent welds, and low fume generation when using straight CO₂ gas. 100% CO₂ gas is recommended, however a 75Ar/25CO₂ mix can be used to improve spatter and increase tensile strength, but the addition of argon gas will also sacrifice weld penetration into the base metal.

Proper preheating (122°F~302°F) and interpass temperature must be used to release base metal diffusible hydrogen, which may cause cracking in weld metal when electrodes are used for medium and heavy plates.

Chemistry:

	Typical	AWS Spec. Single values are max.
Carbon (C)	0.040	0.120
Manganese (Mn)	1.290	1.750
Silicon (Si)	0.550	0.900
Phosphorus (P)	0.013	0.030
Sulfur (S)	0.010	0.030
Chromium (Cr)	0.200	0.200
Nickel (Ni)	0.500	0.500
Molybdenum (Mo)	0.300	0.300
Vanadium (V)	0.080	0.080
Copper (Cu)	0.350	0.350



Mechanical Properties: (As Welded FCAW 100% CO₂)

	Typical	AWS Spec. Single values are min.
Tensile Strength	83,500	70,000 psi
Yield Strength	75,500	58,000 psi
Elongation in 2" (%)	28	22
Charpy V-Notch	55	20 ft-lbs. @ 0°F [27J @ -20°C] CVN



Welding Positions:

All - H, F, VU, VD, OH

Operating Parameters: MIG (FCAW), DCEP DC+

Shielding gas use 100% CO ₂ Shielding Gas					
Hydrogen test with 100% CO ₂ was 4.5 (avg. 3ml~5ml) (ml/100gl)					
Diameter	Amperage	Voltage	Speed (IPM)	Stickout (In.)	Flow Rate (CFH)
0.045 (1.14mm)	230	26-31	450	1/2-1	40-45
0.052 (1.4mm)	255	26-31	375	1/2-1	40-50
1/16 (1.6mm)	315	27-31	300	3/4-1	45-50

When welding in VU, VD or OH positions, amperage should drop by about 25% as well as wire feed speed.

Typically, the wire speed is set, then adjust to voltage to the desirable performance



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