XTR 70C-6M

AWS A5.18 E70C-6M H4

Description:

ER70C-6M is a carbon steel metal-cored welding wire, gas shielded for single or multi-pass welding. The benefit of this metal-cored (C = Composite) wire is it boasts much higher deposition rates with less fume levels when compared to similar solid wires in its class. This product is shipped in an aluminum vacuum pack, assuring proper diffusible hydrogen. This XTR product also has a deoxidizing arc, so pre-weld work is minimized.

Typical Applications:

XTR 70C-6M has a very smooth arc with mild spatter and mild silicon slag post weld, yielding a savings in labor due to reduced post weld cleanup. Intended for building welding (Meets AWS D1.8 seismic lot waiver requirements), shipbuilding, bridges, machineries, vehicles, offshore structures, and general fabrication. 70C-6M is also a fast-freezing electrode, so it allows for high-speed applications.

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. Argon % mixtures may range from 75-95 with balance of CO2.

Chemistry:

	Typical	AWS Spec. Single values are max.
Carbon (C)	0.048	0.120
Manganese (Mn)	1.500	1.750
Silicon (Si)	0.650	0.900
Phosphorus (P)	0.017	0.030
Sulfur (S)	0.013	0.030
Chromium (Cr)	0.030	0.200
Nickel (Ni)	0.420	0.500
Molybdenum (Mo)	0.010	0.300
Vanadium (V)	0.003	0.080
Copper (Cu)	0.010	0.500

Mechanical Properties: (As Welded FCAW 75% Argon / 25% CO2)

	Typical	AWS Spec. Single values are min.	
Tensile Strength	82,000	70,000 psi	
Yield Strength	70,000	58,000 psi	
Elongation in 2” (%)	27	22	
Charpy V-Notch	50	20 ft-lbs. @ 0°F	[27J @ -30°C] CVN

Meets AWS D1.8:2016 Seismic Requirments

Welding Positions:

H, F

Operating Parameters: MIG (FCAW), DCEP DC+

Shielding gas use 75% Argon / 25% CO2 Shielding Gas

Hydrogen test with 75% Ar / 25% CO2 was 2.1 (avg. 1.5ml~3.8ml) (ml/100gl)

Diameter	Amperage	Voltage	Speed (IPM)	Stickout (In.)	Flow Rate (CFH)
0.045 **(1.14mm)**	250	25	315	1/2-1	40-45
0.052 **(1.4mm)**	300	25	355	1/2-1	40-50
1/16 (1.6mm)	350	27	270	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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