

TRU-CORE™ FC 71T-AG
AWS E71T-1M H8, E71T-9M H8



PRODUCT DESCRIPTION:

Tru-Core FC 71T-AG is a flux cored, gas shielded, all-position electrode, designed specifically for use with gas mixtures of from 75% to 80% Argon/balance CO₂. Tru-Core FC 71T-AG is intended for single and multiple pass applications, for both in-position and out-of-position welding. Up to 80% Argon can be used with no degradation in welding performance or mechanical properties. The arc transfer is small-droplet in nature, with no appreciable spatter deposited. The slag is fluid enough to provide good flow and wetting, but freezes quickly, promoting flat, uniform bead shapes in all positions. Microalloying of the weld metal enhances CVN impact values at lower temperatures.

**Flux Cored, Gas Shielded,
Carbon Steel Electrode**

CLASSIFICATIONS & APPROVALS:

- AWS A5.20: E71T-1M H8, E71T-9M H8
- ASME SFA 5.20: E71T-1M H8, E71T-9M H8
- CWB W48-06: E491T-9M-H8

PRODUCT FEATURES	
Excellent bead appearance in all positions	Designed for Argon/carbon dioxide blends
Easy slag removal	Smooth, spray-like arc transfer
Excellent feedability	Excellent mechanical properties
Fast freezing slag promotes excellent out-of-position results	

WELDING POSITIONS:

All position welding is possible when using the correct shielding gas blends, welding process and parameters.

TYPICAL APPLICATIONS :

Tru-Core FC 71T-AG can be used for welding most carbon steels and certain low alloy steels. It is ideal for welding thicknesses varying from 10 gauge sheet metal to heavy plate sections, where “all position” welding capability, stable arc characteristics and excellent mechanical properties are needed. Some examples are:

- Structural Fabrication
- Shipbuilding
- Railcar Construction
- General Fabrication

MANUFACTURING ADVANTAGES:

- Patented forming, feeding and drawing equipment
- Consistent strip-to-core ratio
- Precise thermal treatment that controls the type, amount and uniformity of surface oxides on the wire
- Consistent diffusible hydrogen levels

TYPICAL APPLICATION SHIELDING GAS BLEND:

- 75-80% Argon/Balance CO₂
- Flow Rate: 35-45 CFH

WIRE DIAMETERS (in):

.045	.052	.062
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	AWS/ASME REQ.	75% Ar / 25% CO ₂
TYPICAL WELD METAL COMPOSITION		
CARBON (C)	0.12 (max.)	0.04
MANGANESE (Mn)	1.75 (max.)	1.38
SILICON (Si)	0.90 (max.)	0.43
SULPHUR (S)	0.03 (max.)	0.007
PHOSPHORUS (P)	0.03 (max.)	0.009
CHROMIUM (Cr)	0.20 (max.)	0.06
NICKEL (Ni)	0.50 (max.)	0.02
MOLYBDENUM (Mo)	0.30 (max.)	0.01
VANADIUM (V)	0.08 (max.)	0.016
COPPER (Cu)	0.35 (max.)	0.06
TYPICAL MECHANICAL PROPERTIES		
TENSILE STRENGTH (ksi)	70 – 95	84.2
YIELD STRENGTH (ksi)	58 (min.)	74.1
ELONGATION (% IN 2")	22 (min.)	28
CVN @ -20°F (-29°C)	20 ft-lbf	62.6 ft-lbf
TYPICAL DIFFUSIBLE HYDROGEN – AWS A4.3 REQUIREMENTS		
ml/100g	4.0 (max.)	2.0

