



FRONTIARC-711

Flux-cored wire



A mild steel flux-cored wire versatile enough to have four AWS classes: E71T-1C, E71T-1M, E71T-12C, E71T-12M achieving I.V more than 20 ft-lbs at -20° F and can be welded with 100%CO₂ or 75%Ar-25%CO₂.

Code Data

AWS A5.20 E71T-1CH8, 1MH8
E71T-12CH8,12MH8
CWB/CSA W48-06 E491T-9-H8, 9M-H8

Outstanding Features

- Welding of all position can be done with same welding current setting.
- Less spatter and good slag removability reduces the time of bead grinding operation.
- Diffusible hydrogen content is as low as that of low hydrogen type electrode and crack and blowhole resistibility is excellent.
- Fume generation is lower than conventional flux-core wire.
- Non-baked wire surface covered with special lubricant creates smooth wire feedability and extended liner life.

Applicable and usage

- All position welding for ship hulls, bridges, chemical plant machinery, vehicles and other metal fabrication.

Typical chemistry of all weld metal and diffusible hydrogen content

C	Si	Mn	P	S	Diffusible hydrogen content (ml/100g)
0.05	0.50	1.28	0.013	0.009	5.0

* Data reflects use of 100%CO₂

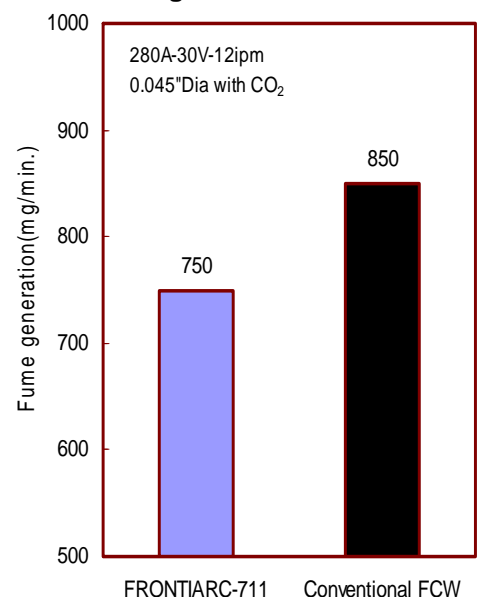
**Gas chromatography method (AWS A4.3)

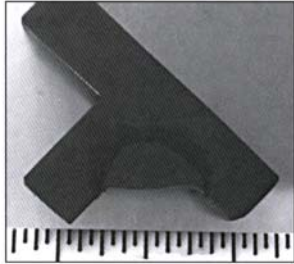
Typical mechanical properties of all weld metal

P.S (psi)	T.S (psi)	Elongation (%)	Impact value (ft-lbs)	
			-20 °F	0 °F
74,000	82,000	29	43	72

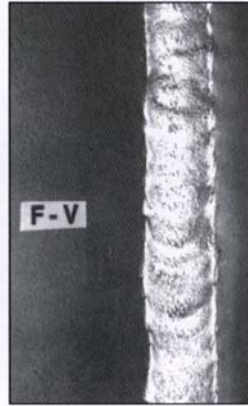
*Data reflects use of 100%CO₂

Welding Fume Generation Rate

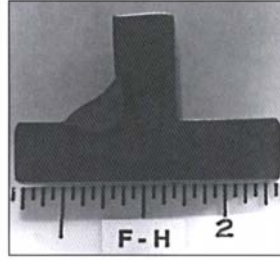




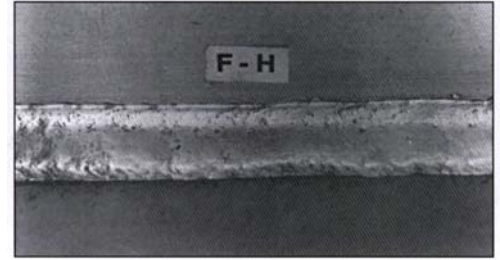
Vertical upward



Vertical upward welding:
220 amp



Horizontal fillet



Horizontal fillet welding: 250 amp

Bead appearance and macro cross-section. Wire diameter:0.045in.

Recommended welding conditions and deposition rate

Wire size (in.)	Wire feed speed (in./min)	Current (A)	Arc Voltage (V)	Deposition rate (lbs/hr)	Wire stick-out (in.)
0.045	140	120	23-26	4.0	3/4"
	200	160	25-28	6.0	
	290	200	27-30	8.0	
	330	220	27-30	9.0	
	400	250	28-30	10.5	
0.052	120	140	24-27	3.5	3/4"
	175	180	24-27	5.5	
	265	240	26-28	8.5	
	300	260	27-29	10.0	1"
	395	300	29-31	11.5	
1/16	100	180	24-27	4.5	3/4"
	165	240	25-28	7.0	
	190	260	26-29	8.0	1"
	250	300	29-31	10.0	
	300	340	30-32	11.5	

Tables shown are approximate values that will vary with changes in welding conditions.

Voltages shown are for 100%CO₂ shielding gas. For 75%Ar-25%CO₂ use two volts less than shown.

*DC-Electrode positive **Arc voltage is measured at wire feeder.

Diameters: 0.045", 0.052", 1/16"

Spool size: 28lbs, 44lbs,55lbs, Drum: 550lbs