



FRONTIARC-711

Flux-cored wire



A mild steel flux-cored wire versatile enough to have four AWS classes: E71T-1, E71T-1M, E71T-1, E71T-1M 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/ASME A5.20 E71T-1C, 1M
E71T-12C, 12M
CWB CSA W48-01 E491T-9, 9M

Outstanding Features

- Welding of all position can be done with same welding current setting.
- Less spattering and good slag removability shorten 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

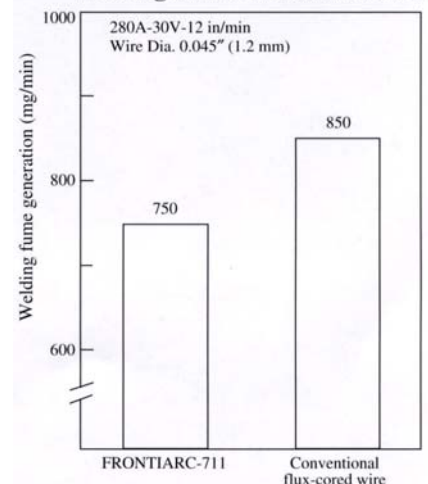
** Gas chromatography method (AWS A4.3)

Typical mechanical properties of all weld metal

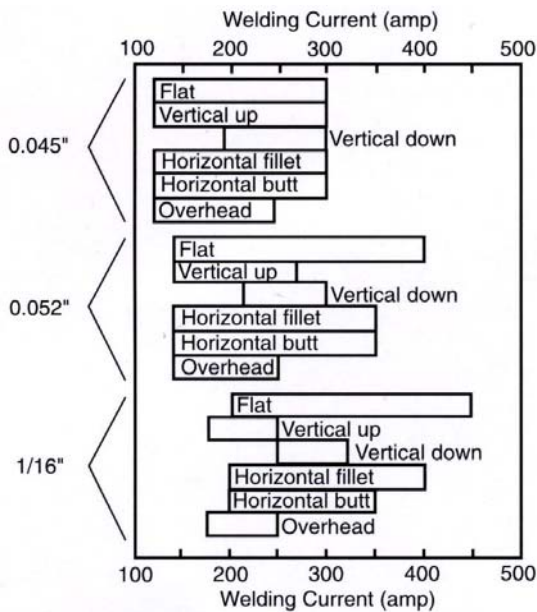
P.S (psi)	T.S (psi)	Elongation (%)	Impact value (ft-lbs)	
			-20 °F	0 °F
74,000	82,000	29	43	72

* Data reflects use of 100%CO₂

Welding Fume Generation Rate



Size available



Recommended welding conditions and deposition rate

Wire size (in.)	Wire feeding speed (in./min)	Current (A)	Voltage (V)	Deposition rate (lbs/hr)	
0.045	180	140	24-27	5.0	
	200	160	25-28	6.0	
	245	180	26-29	7.0	
	290	200	27-30	8.0	
	330	220	27-30	9.0	
	380	240	28-30	10.0	
	440	260	29-31	11.5	
	520	280	29-31	13.0	
0.052	130	150	24-27	4.0	
	175	180	24-27	5.5	
	215	210	25-28	7.0	
	265	240	26-28	8.0	
	315	270	27-29	10.0	
	395	300	29-31	11.0	
	460	330	30-33	13.0	
	525	360	23-34	15.0	
	1/16	120	200	25-28	5.5
		165	240	25-28	7.0
190		260	26-29	8.0	
212		280	28-30	9.0	
250		300	29-31	10.0	
300		340	30-32	11.5	
380		380	30-33	14.0	
450		420	31-35	16.5	

Recommended procedure ranges

Wire size (in.)	Wire extension from contact tip (in.)	Cup size (in.)	Shielding gas flow rate * (cubic ft/hr)
0.045	5/8 - 3/4	5/8	40-50
0.052	3/4 - 1	5/8 **	40-50
1/16	3/4 - 1	5/8 **	40-50

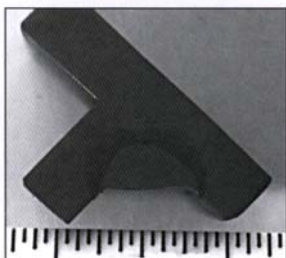
*Gas flow is measured at gas cup(Orifice) with wire in position.

**When utilizing amperage above 300 sue 3/4in. cup in diameter or lager cup size.

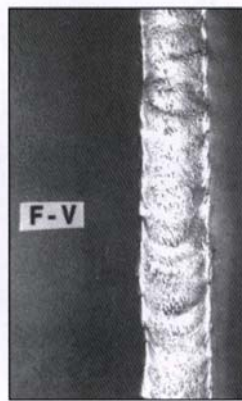
Tables shown are approximate values that will vary with changes in welding conditions.

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

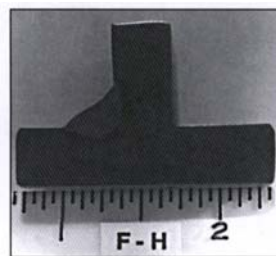
*DC-Electrode positive **Arc voltage is measured at wire feeder.



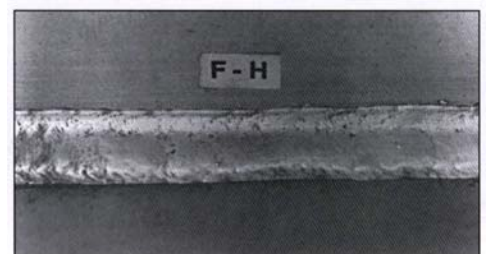
Vertical upward



Vertical upward welding: 220 amp



Horizontal fillet



Horizontal fillet welding: 250 amp

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