



VERTI-COR 70

GAS-SHIELDED FLUX-CORED WIRE
AWS E71T-1M, E71T-12MJ H8 100202 (replaces 100120)

VERTI-COR 70 combines superior welding performance with outstanding mechanical properties. **VERTI-COR 70** has exceptional operator appeal for a wire with such superb physical properties, an arc that is soft and stable, and low fume levels with virtually no spatter. Even in the vertical-up position, the welds produced with **VERTI-COR 70** will have a flat bead profile. This wire is designed for both single- and multiple-pass welding in all positions, using a shielding gas of 75-85% Ar/15-25% CO₂. Typical applications include shipbuilding, offshore structures, and general fabrication where high impact properties, ease of operation and high productivity are required.

PRODUCT CHARACTERISTICS:

- Low fume levels with virtually no spatter.
- Good CVN toughness at sub-zero temperatures.
- Meets MIL specifications for mechanical properties and diffusible hydrogen levels.
- **NOT TO BE USED WITH CO₂.**

SPECIFICATIONS:

E71T-1M, E71T-12MJ H8 per AWS A5.20, E71T-1M, E71T-12MJ H8 per ASME SFA 5.20, F-6, A-1
ABS Grade 3SA, 3YSA
DNV Grade III Y40 MS
Lloyd's Register of Shipping, Grade 3S, 3YS H15
Bureau Veritas Grade SA 3YM
CWB 75-85% Ar/Bal CO₂ E491T-12MJ-H4

SHIELDING GAS:

75-85% Ar/bal CO₂, 35-50 cfh

WELDING POSITION:

All Positions

STANDARD DIAMETERS:

.045", 1/16"

WELD TEST PARAMETERS:

VERTI-COR 70 1/16" diameter electrode was welded and tested in accordance with AWS A5.20-95 and ASME SFA 5.20-95.

TYPICAL UNDILUTED WELD METAL CHEMISTRY*:

	C	Mn	Si	P	S	Ni
80% Ar/20% CO ₂	0.05	1.16	0.34	0.014	0.012	0.34

TYPICAL MECHANICAL PROPERTIES*:

Tensile Strength	80,000 psi (553 MPa)
Yield Strength	73,000 psi (505 MPa)
Elongation	28%
CVN @ 0°F (-18°C)	68 ft•lbs (93 J)
CVN @ -40°F (-40°C)	25 ft•lbs (30 J)

The above properties were determined with 80% Ar/20% CO₂ shielding gas.

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company expressly disclaims any liability incurred from any reliance thereon. Typical data are obtained when welded and tested in accordance with AWS A5.20 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers Company.

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RECOMMENDED OPERATING PARAMETERS:

The information below was determined by welding performed with 75% Ar/25% CO₂ shielding gas at a flow rate of 40 cfh.

Diameter Electrical Stickout (ES) Position	Arc Voltage (volts)	Current DCEP (+) (amps)	Approx. Wire Feed Speed (in/min)	Deposition Rate (lbs/hr)
.045" 1/2" to 3/4" Flat and Horizontal	24	150	200	4.1
	26	200	320	6.5
	28	250	440	8.9
	31	300	560	11.4

.045" 1/2" to 3/4" Vertical and Overhead	24	150	200	4.1
	26	200	320	6.5
	27	225	380	7.7

1/16" 1/2" to 3/4" Flat and Horizontal	27	300	285	9.9
	28	350	350	12.3
	30	400	420	14.9
	34	450	500	18.4

1/16" 1/2" to 3/4" Vertical and Overhead	24	200	160	5.7
	25	225	190	6.8
	26	250	220	7.8

Bold: Optimum parameters for welder appeal.

Notice:

Actual use of the product may produce varying results due to conditions and welding techniques over which Corex has no control, including, but not limited to, plate chemistry, weldment design, fabrication methods, electrode size, welding procedure, service requirements and environment. The purchaser is solely responsible for determining the suitability of Corex products for the purchaser's own use. Any prior representations shall not be binding. Corex disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

Caution:

Consumers should be thoroughly familiar with the safety precautions shown on the Warning Label posted on each shipment in and in American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW LeJeune Road, Miami, FL 33126, and OSHA Safety and Health Standards 29 CFR 1910, available from the U.S. Department of Labor, Washington, D.C. 20210.