AWS A5.20: E70T-1C, E70T-1M, E70T-9C, E70T-9M



WELDING POSITIONS:

FEATURES:	BENEFITS:	
 High-deoxidizer formulation Superior penetration profiles Easy slag removal Excellent arc characteristics 	 Reduces surface preparation require Promotes high-quality welds Reduces clean-up time, minimizes r Enhances operator appeal, assists i with uniform appearance and quality 	ements, to help increase productivity isk of inclusion n producing smooth weld beads
APPLICATIONS:		
Non-alloyed and fine grain steels	Mining equipment	
 Single or multi-pass welding 	 Construction equipment 	

- Single or multi-pass welding
- · Storage vessels
- Structural fabrication

SLAG SYSTEM: Slow-freezing, rutile-type, flux-cored wire

SHIELDING GAS: 75-80% Argon (Ar)/Balance Carbon Dioxide (CO₂), 100% Carbon Dioxide (CO₂), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 1/16" (1.6 mm)

RE-DRYING: Not recommended

STORAGE: Product should be stored in a dry, enclosed environment, and in its original packaging

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

Weld Metal Analysis %	100% CO ₂	75% Ar/25% CO₂	AWS Spec
Carbon (C)	0.05	0.05	0.12
Manganese (Mn)	1.45	1.68	1.75
Silicon (Si)	0.53	0.70	0.90
Sulphur (S)	0.009	0.010	0.030
Phophorus (P)	0.008	0.009	0.030

Note: AWS specification single values are maximums.

TYPICAL MECHANICAL PROPERTIES* [Aged 48 Hrs. @ 200°F (93°C)]:

Mechanical Tests	100% CO ₂	75% Ar/25% CO ₂	AWS Spec
Tensile Strength	84,000 psi (579 MPa)	92,000 psi (634 MPa)	70,000-95,000 psi (490-670 MPa)
Yield Strength	74,000 psi (510 MPa)	78,000 psi (538 MPa)	58,000 psi (390 MPa) Minimum
Elongation % in 2" (50 mm)	27%	27%	22% Minimum

TYPICAL CHARPY V-NOTCH IMPACT VALUES* [Aged 48 Hrs. @ 200°F (93°C)]:

CVN Temperatures	100% CO₂	75% Ar/25% CO₂	AWS Spec
Avg. at 0°F (-20°C)	43 ft•lbs (58 Joules)	43 ft•lbs (58 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -20°F (-30°C)	44 ft•lbs (60 Joules)	33 ft•lbs (45 Joules)	20 ft•lbs (27 Joules) Minimum

^{*}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 those obtained when welded and tested in accordance with the 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.

FabCO[®] T9M

Diam Inches	eter (mm)	Weld Position	Amps	Volts	Wire Sp in/min	e Feed beed (m/min)	Depo Ra Ibs/hr	osition ate (kg/hr)	Contact Work Di Inches	Tip to stance (mm)
1/16	(1.6)	Flat & Horizontal	250	25	200	(5.1)	8.7	(3.9)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	350	28	330	(8.4)	13.6	(6.2)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	375	30	360	(9.2)	14.7	(6.7)	3/4	(19)
3/32	(2.4)	Flat & Horizontal	425	28	160	(4.1)	14.7	(6.7)	1	(25)
3/32	(2.4)	Flat & Horizontal	525	31	210	(5.3)	18.8	(8.5)	1	(25)
3/32	(2.4)	Flat & Horizontal	575	32	240	(6.1)	21.2	(9.6)	1	(25)

• Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.

See Above: This information was determined by welding using 100% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 75% Argon (Ar)/25% Carbon Dioxide (CO₂) shielding gas, reduce voltage by approximately 1-3 volts.

STANDARD DIAMETERS AND PACKAGES: For a complete list of diameters and packaging, please contact Hobart Brothers at (800) 424-1543 or (937) 332-5188 for International Customer Service.

Diameter Inches (mm)		60-lb. (27.2kg) Coil
1/16	(1.6)	S272019-002

CONFORMANCES AND APPROVALS:

- AWS A5.20, E70T-1C, E70T-1M, E70T-9C, E70T-9M
- AWS A5.20M, E490T-1C, E490T-1M, E490T-9C, E490T-9M
- ASME SFA 5.20M, E70T-1C, E70T-1M, E70T-9C, E70T-9M
- CWB, 100% CO2, E492T-9-H8, 75-80% Argon/Balance CO2, E492T-9M-H8, (2.4mm diameter electrodes)

TECHNICAL QUESTIONS? For technical support of Hobart Filler Metals products, contact the Applications Engineering department by phone toll-free at 1-800-532-2618 or by e-mail at <u>Applications.Engineering@hobartbrothers.com</u>

CAUTION:

Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW LeJune Road, Miami, FL 33126 (can be downloaded online at www.aws.org); OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service or at www.hobartbrothers.com.

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