

FabCO[®] 85



AWS A5.20: E70T-5CJ H4, E70T-5MJ H4

WELDING POSITIONS:



FEATURES:

- Basic slag system
- Low hydrogen weld deposit
- Excellent low temperature impacts

BENEFITS:

- Provide increased toughness
- Increased resistance to cracking
- Can be used for critical applications

APPLICATIONS:

- Non-alloyed and fine grain steels
- Earth moving equipment
- Heavy fabrications
- Severe service

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

SHIELDING GAS: 100% Carbon Dioxide (CO₂), 80% Argon (Ar)/20% Carbon Dioxide (CO₂), 35-50 cfh (14-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 1/16" (1.6 mm), 3/32" (2.4 mm)

RE-DRYING: Not recommended

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

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

Weld Metal Analysis	100% CO ₂	80% Ar/20% CO ₂	AWS Spec
Carbon (C)	0.04	0.05	0.12
Manganese (Mn)	1.50	1.55	1.75
Silicon (Si)	0.85	0.88	0.90
Sulphur (S)	0.005	0.006	0.030
Phosphorus (P)	0.009	0.008	0.030

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	100% CO ₂	80% Ar/20% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	2.2 ml/100g	2.5 ml/100g	4 ml/100g maximum

TYPICAL MECHANICAL PROPERTIES*:

Mechanical Tests	100% CO ₂	80% Ar/20% CO ₂	AWS Spec
Tensile Strength	89,000 psi (614 MPa)	91,000 psi (627 MPa)	70,000 - 95,000 psi (490-670 MPa)
Yield Strength	71,000 psi (490 MPa)	71,000 psi (490 MPa)	58,000 psi (390 MPa)
Elongation % in 2" (50 mm)	24%	24%	22%

TYPICAL CHARPY V-NOTCH IMPACT VALUES*:

CVN Temperatures	100% CO ₂	80% Ar/20% CO ₂	AWS Spec
Avg. at -40°F (-40°C)	51 ft•lbs (69 Joules)	45 ft•lbs (61 Joules)	20 ft•lbs (27 Joules)

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Typical data are those 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 LLC.

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Diameter Inches (mm)		Weld Position	Amps	Volts	Wire-Feed Speed in/min (m/min)		Deposition Rate lbs/hr (kg/hr)		Contact Tip to Work Distance Inches (mm)	
1/16	(1.6)	Flat & Horizontal	200	25	200	(5.1)	7.1	(3.2)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	350	28	360	(9.1)	13.0	(5.9)	3/4	(19)
3/32	(2.4)	Flat & Horizontal	300	26	130	(3.3)	10.2	(4.6)	1	(25)
3/32	(2.4)	Flat & Horizontal	450	31	215	(5.5)	17.0	(7.7)	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 with 100% CO₂ shielding gas with a flow rate between 35-50 cfh (14-24 l/min). For 80% Ar/20% CO₂ shielding gas, reduce voltage by 1-2 volts.

AVAILABLE 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)	S647519-002
3/32	(2.4)	S647529-002

CONFORMANCES AND APPROVALS:

- **AWS A5.20**, E70T-5CJ H4, E70T-5MJ H4
- **AWS A5.20M**, E490T-5CJ H4, E490T-5MJ H4
- **ASME SFA 5.20**, E70T-5CJ H4, E70T-5MJ H4
- **ABS** 100% CO₂ E70T-5CJ H4, 80% Ar/20% CO₂ E70T-5MJ H4
- **CWB**, E490T5-(C1A4, M21A4)-CS1-H4 (E492T-5J-H4, E492T-5MJ-H4) [1.6 mm - 2.4 mm 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 Applications.Engineering@hobartbrothers.com

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, 8669 NW 36th St., Miami, FL 33166 (can also 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

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

Because Hobart Brothers LLC is constantly improving products, Hobart reserves the right to change design and/or specifications without notice.

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