

FabCO[®] Premier 70



AWS A5.20: E70T-1CJ H8, E70T-9CJ H8

WELDING POSITIONS:



FEATURES:

- Specially formulated to minimize risk of porosity when welding over Nippe Ceramo 937, 997, and similar weld-through primers (1.0 mil maximum thickness)
- Smooth and stable arc characteristics
- Low spatter and easy slag removal
- Provides good weld metal toughness

BENEFITS:

- Helps to improve productivity by reducing surface preparation requirements and minimizing part rework
- Improves operator appeal
- Reduces clean-up time to improve productivity
- Helps minimize risk of cracking in critical applications

APPLICATIONS:

- Single or multi-pass welding
- Ship and barge building
- Non-alloyed and fine grain steels
- Railcar
- Primer-coated steels
- General fabrication

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

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

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.052" (1.4 mm), 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	AWS Spec
Carbon (C)	0.02	0.12
Manganese (Mn)	1.18	1.75
Silicon (Si)	0.32	0.90
Phosphorus (P)	0.007	0.030
Sulphur (S)	0.008	0.030
Nickel (Ni)	0.43	0.50

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	100% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	4.3 ml/100g	8.0 ml/100g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	100% CO ₂	AWS Spec
Tensile Strength	84,000 psi (579 MPa)	70,000-95,000 psi (480-600 MPa)
Yield Strength	75,000 psi (517 MPa)	58,000 psi (390 MPa) Minimum
Elongation % in 2" (50 mm)	28%	22% Minimum

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (As Welded):

CVN Temperatures	100% CO ₂	AWS Spec
Avg. at 0°F (-20°C)	95 ft•lbs (129 Joules)	20 ft•lbs (27 Joules) Minimum
Avg. at -40°F (-40°C)	55 ft•lbs (75 Joules)	20 ft•lbs (27 Joules) Minimum "J" Requirement

*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.

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Diameter		Weld Position	Amps	Volts	Wire Feed Speed		Deposition Rate		Contact Tip to Work Distance	
Inches	(mm)				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.052	(1.4)	Flat & Horizontal	250	27	360	(9.1)	9.2	(4.2)	5/8	(16)
0.052	(1.4)	Flat & Horizontal	275	28	420	(10.7)	10.9	(4.9)	5/8	(16)
0.052	(1.4)	Flat & Horizontal	300	29	480	(12.2)	12.5	(5.7)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	325	30	555	(14.1)	14.4	(6.5)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	350	21	640	(16.3)	16.7	(7.6)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	200	25	165	(4.2)	5.0	(2.3)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	250	27	235	(6.0)	8.2	(3.7)	3/4	(19)
1/16	(1.6)	Flat & Horizontal	300	29	315	(8.0)	11.2	(5.1)	1	(25)
1/16	(1.6)	Flat & Horizontal	350	29	415	(10.5)	14.8	(6.7)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	31	515	(13.1)	18.1	(8.2)	1	(25)
1/16	(1.6)	Flat & Horizontal	450	32	615	(15.6)	22.2	(10.0)	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 cfm (17-24 l/min).

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		33-lb. (15kg)	400-lb. (181.4kg)
Inches	(mm)	Spool	X-Pak
0.052	(1.4)	—	S247415-064
1/16	(1.6)	S247419-029	—

CONFORMANCES AND APPROVALS:

- **AWS A5.20**, E70T-1CJ H8, E70T-9CJ H8
- **AWS A5.20M**, E490T-1CJ H8, E490T-9CJ H8
- **ASME SFA 5.20**, E70T-1CJ H8, E70T-9CJ H8
- **ABS**, 100% CO₂, 3YSA

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 36 St, # 130, Doral, FL 33166-6672 (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

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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