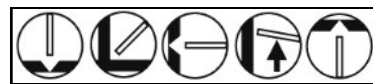


FabCOR[®] Element[™] XP



AWS A5.18: E70C-6M H4

WELDING POSITIONS:



FEATURES:

- Extremely low manganese emissions
- Low spatter and fume
- Enhanced silica island removal
- Higher deposition than solid wire

BENEFITS:

- Increased operator appeal
- Improved operator comfort and productivity
- Assists with conformance to environmental regulations
- Reduced clean-up time

APPLICATIONS:

- Shipbuilding
- Structural steel
- Heavy equipment
- General fabrication

WIRE TYPE: Gas-shielded, metal-powder, metal cored wire

SHIELDING GAS: 90% Argon (Ar)/10% Carbon Dioxide (CO₂) 35-50 cfh (14-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.045" (1.2 mm), 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 intact packaging.

TYPICAL WELD METAL CHEMISTRY* (Chem Pad):

Weld Metal Analysis	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
Carbon (C)	0.04	0.05	0.12
Manganese (Mn)	1.15	1.21	1.75
Silicon (Si)	0.69	0.71	0.90
Sulphur (S)	0.011	0.011	0.03
Phosphorus (P)	0.011	0.011	0.03
Nickel (Ni)	0.40	0.40	0.50
Boron (B)	0.0046	0.0053	Not specified

Note: Unless otherwise noted, AWS specification single values are maximum.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	1.9 ml/100 g	2.6 ml/100g	4.0 ml/100 g Maximum

TYPICAL MECHANICAL PROPERTIES* [Aged 48 Hrs. @ 220°F (104°C)]:

Mechanical Tests	75% Ar/25% CO ₂	90% Ar/10% CO ₂	AWS Spec
Tensile Strength	82,900 psi (572 MPa)	86,200 psi (594 MPa)	70,000 psi (490 MPa) Minimum
Yield Strength	74,500 psi (514 MPa)	80,000 psi (552 MPa)	58,000 psi (400 MPa) Minimum
Elongation % in 2" (50 mm)	27%	26%	22% Minimum

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (AS WELDED):

CVN Temperatures	75% Ar/25% CO ₂	90% Ar/10% CO ₂
Avg. at -20°F (-30°C)	41 ft-lb (56 Joules)	50 ft-lb (67 Joules)
Avg. at -40°F (-40°C)	36 ft-lb (48 Joules)	42 ft-lb (56 Joules)

*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 AWS A5.18 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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TYPICAL OPERATING PARAMETERS*:

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)
0.045 (1.2)	Flat & Horizontal	190	24	250 (6.4)	6.4 (2.9)	3/4 (19)
0.045 (1.2)	Flat & Horizontal	230	26.5	350 (8.9)	9.0 (4.1)	3/4 (19)
0.045 (1.2)	Flat & Horizontal	270	27	425 (10.8)	10.9 (4.9)	3/4 (19)
0.045 (1.2)	Flat & Horizontal	350	29	650 (14.6)	16.8 (7.6)	1 (25)
0.052 (1.4)	Flat & Horizontal	210	24.5	200 (5.1)	6.9 (3.1)	3/4 (19)
0.052 (1.4)	Flat & Horizontal	250	25.5	250 (6.4)	8.6 (3.9)	3/4 (19)
0.052 (1.4)	Flat & Horizontal	300	26.5	310 (7.9)	10.6 (4.8)	3/4 (19)
0.052 (1.4)	Flat & Horizontal	350	31	500 (12.7)	17.1 (7.7)	1 (25)
0.052 (1.4)	Flat & Horizontal	375	32	550 (13.9)	18.8 (8.5)	1 (25)
1/16 (1.6)	Flat & Horizontal	240	25	170 (4.3)	8.1 (3.7)	3/4 (19)
1/16 (1.6)	Flat & Horizontal	280	26.5	200 (5.1)	9.5 (4.3)	1 (25)
1/16 (1.6)	Flat & Horizontal	330	28.5	260 (6.6)	12.4 (5.6)	1 (25)
1/16 (1.6)	Flat & Horizontal	390	30	320 (8.1)	15.2 (6.9)	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: The information above was determined by welding using 90% Ar/10% CO₂ shielding gas with a flow rate between 35-50 cfh (14-24 l/min). When welding using 75% Ar/25% CO₂ shielding gas, increase voltage by 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)	33-lb. (15kg) 12" (305mm) Fiber Spool	1000-lb. (453.6kg) X-Pak
Net Pallet Weight	2376-lb. (1078kg)	2000-lb. (907kg)
0.045 (1.2)	S294812-029	S294812-058
0.052 (1.4)	S294815-029	S294815-058
1/16 (1.6)	S294819-029	S294819-058

CONFORMANCES AND APPROVALS:

- AWS A5.18, E70C-6M H4
- AWS A5.18M, E49C-6M H4
- ASME SFA 5.18, E70C-6M H4
- CWB, E491T15-(M12, M20, M21, M22)A4-CS1-H4

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.

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

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Revision Date: 241206 (Replaces 240924)
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