FabCOR® Edge MC

AWS A5.18: E70C-6M H4

WELDING POSITIONS:

FEATURES:	BENEFITS:
• Higher deposition rates and efficiencies than solid wires	• Helps increase travel speeds and productivity
• Virtually no slag coverage	• Allows multi-pass welding without deslagging, reduces clean-up time
• Outstanding high-production performance	• Excellent for robotic welding
• Smooth arc characteristics	• Assists inproducing welds of uniform appearance and quality, and improving welder appeal
• Low diffusible hydrogen weld deposit	• Increases resistance to cracking

APPLICATIONS:

- Automatic and mechanized welding
- Storage vessels
- Non-alloyed and fine grain steels
- Steel structures
- Rail cars
- Earthmoving equipment

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

SHIELDING GAS: 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2), 35-50 cfh (17-24 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	95% Ar/5% CO_2	AWS Spec
Carbon (C)	0.04	0.04	0.04	0.12
Manganese (Mn)	1.43	1.52	1.62	1.75
Silicon (Si)	0.62	0.72	0.77	0.90
Sulphur (S)	0.009	0.010	0.011	0.030
Phosphorus (P)	0.006	0.008	0.008	0.030

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	75% Ar/25% CO_2	90% Ar/10% CO_2	95% Ar/5% CO_2	AWS Spec
(GAS CHROMATOGRAPHY)	2.8 ml/100g	2.8 ml/100g	2.9 ml/100g	4.0 ml/100g Maximum

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	75% Ar/25% CO_2	90% Ar/10% CO_2	95% Ar/5% CO_2	AWS Spec
Tensile Strength	85,000 psi (586 MPa)	87,000 psi (600 MPa)	90,000 psi (634 MPa)	70,000 psi (480 MPa) Minimum
Yield Strength	73,000 psi (503 MPa)	75,000 psi (517 MPa)	81,000 psi (558 MPa)	58,000 psi (400 MPa) Minimum
Elongation % in 2" (50 mm)	28%	28%	25%	22% Minimum

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

CVN Temperatures	75% Ar/25% CO_2	90% Ar/10% CO_2	95% Ar/5% CO_2	AWS Spec
Avg. at -20°F (-30°C)	40 ft•lbs (54 Joules)	36 ft•lbs (49 Joules)	30 ft•lbs (41 Joules)	20 ft•lbs (27 Joules) Minimum

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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)
0.045	(1.2)	Flat & Horizontal	200	27	241	(6.1)	6.0	(2.7)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	250	29	341	(8.7)	8.7	(3.9)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	300	32	422	(10.7)	11.2	(5.1)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	350	34	572	(14.5)	15.6	(7.1)	3/4	(19)
0.045	(1.2)	Flat & Horizontal	400	36	725	(18.4)	19.8	(9.0)	3/4	(19)
0.052	(1.4)	Flat & Horizontal	200	25	190	(4.8)	6.0	(2.7)	1	(25)
0.052	(1.4)	Flat & Horizontal	250	28	265	(6.7)	8.9	(4.0)	1	(25)
0.052	(1.4)	Flat & Horizontal	300	30	340	(8.6)	11.8	(5.4)	1	(25)
0.052	(1.4)	Flat & Horizontal	350	32	420	(10.7)	14.9	(6.8)	1	(25)
0.052	(1.4)	Flat & Horizontal	400	36	540	(13.7)	19.1	(8.7)	1	(25)
1/16	(1.6)	Flat & Horizontal	250	29	160	(4.1)	7.0	(3.2)	1	(25)
1/16	(1.6)	Flat & Horizontal	300	31	205	(5.2)	9.5	(4.3)	1	(25)
1/16	(1.6)	Flat & Horizontal	350	32	255	(6.5)	11.8	(5.4)	1	(25)
1/16	(1.6)	Flat & Horizontal	400	34	320	(8.1)	15.5	(7.0)	1	(25)
1/16	(1.6)	Flat & Horizontal	500	36	500	(12.7)	24.5	(11.1)	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.**
- **For out of position welding, short circuit or pulsed spray transfer mode must be used.**
- **See Above:** This information was determined by welding using 75% Ar/25% CO_2 shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 90% Ar/10% CO_2 shielding gas, reduce voltage 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) Spool	750-lb. (340.2kg) X-Pak
0.045	(1.2)	S276312-029	S276312-075
0.052	(1.4)	S276315-029	S276315-075
1/16	(1.6)	S276319-029	S276319-075

CONFORMANCES AND APPROVALS:
- **AWS A5.18,** E70C-6M H4
- **AWS A5.18M,** E48C-6M H4
- **ASME SFA 5.18** E70C-6M H4
- **CWB,** 75-95% Ar/Balance CO_2, E491C-6M-H4, 95% Ar/5% O_2, E492C-6M-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, 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.

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

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HOBART FILLER METALS