

FabCOR[®] Edge[™] XP



AWS A5.18: E70C-6M H4
AWS A5.28: E80C-G H4
EN ISO 17632-A: T46 3 M M21 H5

WELDING POSITIONS:



FEATURES:

- Higher deposition rates and efficiencies than solid wires.
- Smooth arc Characteristics
- Formulation specifically addresses silicon island formation and distribution when welding scale-free base metal.
- Excellent bead appearance and contour when welding over mill scale.

BENEFITS

- Allows for improved welding travel speeds and productivity.
- Provides good operator appeal and produces welds with uniform appearance.
- Reduces time spent on post-weld silicon removal in preparation for paint/coating application or other weld passes.
- Helps minimize the need for pre-weld cleaning.

APPLICATIONS:

- Automatic and mechanized welding
- Semi-automatic welding
- Truck and trailer fabrication
- Non-alloyed and fine grain steels
- Structural steel fabrication
- Rail cars
- Earthmoving equipment
- Agricultural equipment
- General fabrication

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

SHIELDING GAS: 75-95% Argon (Ar)/Balance Carbon Dioxide (CO₂), 35-50 cfh (19-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.035" (0.9), 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 CHEMICAL COMPOSITION* (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 WELD METAL 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/100 g	2.8 ml/100 g	2.9 ml/100 g	4.0 ml/100 g 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) Min.
Yield Strength	73,000 psi (503 MPa)	75,000 psi (517 MPa)	81,000 psi (558 MPa)	58,000 psi (400 MPa) Min.
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. @ -20°F (-30°C)	40 ft-lbs (54 Joules)	36 ft-lbs (49 Joules)	30 ft-lbs (41 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 Company expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with the AWS A5.18 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 LLC.

FabCOR[®] Edge[™] XP

TYPICAL OPERATING PARAMETERS*:

Diameter Inches (mm)	Weld Position	Amps	Volts	Wire Feed Speed		Deposition Rate		Contact Tip to Work Distance	
				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.035 (0.9)	Flat & Horizontal	150	24	320	(8.1)	4.6	(2.1)	1/2	(13)
0.035 (0.9)	Flat & Horizontal	200	26	450	(11.4)	6.9	(3.1)	1/2	(13)
0.035 (0.9)	Flat & Horizontal	250	29	590	(15.0)	9.2	(4.2)	1/2	(13)
0.045 (1.2)	Flat & Horizontal	200	23	240	(6.1)	6.6	(3.0)	3/4	(19)
0.045 (1.2)	Flat & Horizontal	250	25	340	(8.6)	8.9	(4.0)	3/4	(19)
0.045 (1.2)	Flat & Horizontal	300	26	420	(10.7)	11.5	(5.2)	3/4	(19)
0.045 (1.2)	Flat & Horizontal	350	28	570	(14.5)	16.1	(7.3)	7/8	(22)
0.045 (1.2)	Flat & Horizontal	400	30	725	(18.4)	20.1	(9.1)	7/8	(22)
0.052 (1.4)	Flat & Horizontal	200	23	190	(4.8)	6.9	(3.1)	3/4	(19)
0.052 (1.4)	Flat & Horizontal	250	24	240	(6.1)	9.1	(4.1)	3/4	(19)
0.052 (1.4)	Flat & Horizontal	300	26	320	(8.1)	11.4	(5.2)	3/4	(19)
0.052 (1.4)	Flat & Horizontal	350	28	405	(10.3)	14.6	(6.6)	7/8	(22)
0.052 (1.4)	Flat & Horizontal	400	30	515	(13.1)	19.2	(8.7)	7/8	(22)
1/16 (1.6)	Flat & Horizontal	250	24	155	(3.9)	7.6	(3.4)	7/8	(22)
1/16 (1.6)	Flat & Horizontal	300	25	205	(5.2)	10.4	(4.7)	7/8	(22)
1/16 (1.6)	Flat & Horizontal	350	27	265	(6.7)	12.1	(5.5)	7/8	(22)
1/16 (1.6)	Flat & Horizontal	400	29	325	(8.3)	15.6	(7.1)	1	(25)
1/16 (1.6)	Flat & Horizontal	500	31	500	(12.7)	24.7	(11/2)	1	(25)

- **Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of the steel being welded.**
- **For out of position welding, short circuit or pulsed spray transfer mode must be used.**
Pulse waveforms are designed with nominal operating points that may result in average voltage and current values that differ from the table above. Generally, pulse processes can be expected to produce lower heat inputs than a standard CV process.
- **See Above:** This information was determined by welding using 90% Ar/10% CO₂ shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 75% Ar/25% CO₂ shielding gas, increase voltage by 1-3 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

Diameter Inches (mm)	33-lb. (15kg)	50-lb. (22.7kg)	500-lb. (226.8kg)	1000-lb. (453.6kg)
	Spool	Spool	X-Pak	Recyclable X-Pak
Net Pallet Weight	2376-lb (1078 kg)	1600-lb (726 kg)	2000-lb (907 kg)	2000-lb. (907 kg)
0.035 (0.9)	S250608-029	—	—	—
0.045 (1.2)	S250612-029	S250612-027	S250612-050	S250612-058
0.052 (1.4)	S250615-029	S250615-027	S250615-050	S250615-058
1/16 (1.6)	S250619-029	S250619-027	—	S250619-058

CONFORMANCES AND APPROVALS

- **AWS A5.18**, E70C-6M H4
- **AWS A5.18M**, E49C-6M H4
- **AWS A5.28**, E80C-G H4
- **AWS A5.28M**, E55C-G H4
- **ASME SFA 5.18**, E70C-6M H4
- **CWB**, E491T15-(M12, M20, M21)A3-CS1-H4
- **EN ISO 17632-A**, T46 3 M M21 H5
- **AWS D1.8**, See Approval Certificate for Details [0.045" (1.2 mm) - 1/16" (1.6 mm) diameters]
- **CE Marked** per CPR 305/2011 (1.2 mm - 1.6 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 36 St, Miami, 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

Safety Data Sheets on any Hobart Brothers LLC 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.

Edge is a trademark of Hobart Brothers Company, Troy Ohio.

Hobart and FabCOR are registered trademarks of Hobart Brothers LLC, Troy, Ohio.

Revision Date: 240812 (Replaces 230616)

