Fabshield® FE80™

AWS A5.29: E80T6-G-H8

WELDING POSITIONS:

FEATURES:

- Excellent slag removal
- No shielding gas required
- Good impact strength at low temperatures
- Low hydrogen weld deposit
- Excellent mechanical properties within a wide range of heat inputs

BENEFITS:

- Increases productivity
- Suitable for welding outdoors
- Resists cracking in severe applications
- H8 hydrogen may allow reduced pre heat requirement
- AWS D1.8 Pre-qualified

APPLICATIONS:

- Structural steel erection
- Moment and column splice connections
- Single or multi-pass welding
- General manufacturing and bridge fabrication
- ASTM A572 Gr.65 and A913 Gr.65
- AWS D1.8 Demand Critical applications

SHIELDING GAS: Not required

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

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 (%)	Fabshield® FE80™	AWS Spec
Carbon (C)	0.05	Not specified
Manganese (Mn)	1.75	0.50 Min.‡
Silicon (Si)	0.25	1.00
Sulphur (S)	0.004	0.030
Phosphorus (P)	0.010	0.030
Nickel (Ni)	1.40	0.50 Min.‡
Aluminum (Al)	0.90	1.80

Note: AWS specification single values are maximums.
‡Note: AWS A5.29/A5.29M requires at least one or more of the elements noted to meet the minimum composition values

TYPICAL MECHANICAL PROPERTIES* (As Welded):

Mechanical Tests	Fabshield® FE80™	AWS Spec
Tensile Strength	95,000 psi (655 MPa)	80,000-100,000 psi (550-690 MPa)
Yield Strength	82,000 psi (565 MPa)	68,000 psi (470 MPa) Min.
Elongation % in 2” (50 mm)	22%	19% Min.

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

CVN Temperatures	Fabshield® FE80™	AWS Spec
Avg. at -20°F (-30°C)	30 ft •lbs (41 Joules)	Not Specified

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	Fabshield® FE80™	AWS Spec
Gas Chromatography	5.0 ml/100g	8.0 ml/100g Max.

*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 the AWS A5.29 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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Fabshield® FE80™

Diameter Inches	(mm)	Welding Position	Amperage	Voltage	Wire Feed Speed in/min	(m/min)	Deposition Rate lbs/hr	(kg/hr)	Contact Tip to Work Distance Inches	(mm)
3/32	(2.4)	Flat & Horizontal	330	23	160	(4.1)	10.8	(4.9)	1 3/4	(44.5)
3/32	(2.4)	Flat & Horizontal	410	25	240	(6.1)	16.2	(7.3)	1 3/4	(44.5)
3/32	(2.4)	Flat & Horizontal	470	27	300	(7.6)	20.4	(9.2)	1 3/4	(44.5)

Maintaining a proper welding procedure - including pre-heat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.

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)	25-lb. (11.3kg) Vacuum-Packed Spool	50-lb. (22.6kg) Coil
Net Pallet Weight		**1800-lb. (816kg)**	**1600-lb. (726kg)**
3/32	(2.4)	S226129-024	S226129-V14

CONFORMANCES AND APPROVALS:

- **AWS A5.29,** E80T6-G-H8
- **AWS A5.29M,** E550T6-G-H8
- **AWS D1.8 Conformance:** 3/32" (2.4 mm)

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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Revision Date: 260801 (Replaces 000000)

HOBART FILLER METALS