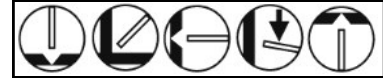


# Fabshield® 81N1



AWS E71T8-Ni1 J H8  
EN ISO 17632-A, T38 4 1Ni Y NO 1 H10

## WELDING POSITIONS:



### FEATURES:

- Excellent operator appeal
- Fast-freezing slag
- Self-peel slag removal
- Good temperature impacts
- No shielding gas required

### BENEFITS:

- Reduces fatigue
- Allows for all-position welding
- Reduces time spent cleaning weld beads
- Welds remain ductile at cold temperatures
- Great for outdoor welding

### APPLICATIONS:

- Grade X70 and below
- Transmission pipelines API 5L

**SLAG SYSTEM:** Fast freezing, basic type, self-shield flux cored wire

**SHIELDING GAS:** Not required

**TYPE OF CURRENT:** DCEN

**STANDARD DIAMETERS:** 5/64" (2.0mm)

**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 81N1	AWS Spec
Carbon (C)	0.03	0.12
Manganese (Mn)	0.87	1.50
Silicon (Si)	0.05	0.80
Sulphur (S)	0.004	0.03
Phosphorus (P)	0.010	0.03
Aluminum (Al)	0.67	1.80
Nickel (Ni)	0.95	0.80-1.10

**Note:** Single values are maximums.

### TYPICAL DIFFUSIBLE HYDROGEN:

Hydrogen Equipment	Typical	AWS Spec
(GAS CHROMATOGRAPHY)	6.36ml/100 g	8.1ml/100 g Maximum

### TYPICAL MECHANICAL PROPERTIES\* (As Welded):

Mechanical Tests	Fabshield 81N1	AWS Spec
Tensile Strength	71,800 psi (495 MPa)	70,000-90,000 psi (490-620 MPa)
Yield Strength	60,000 psi (414 MPa)	58,000 psi (400 MPa) Minimum
Elongation % in 2" (50 mm)	29%	20% Minimum

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

CVN Temperatures	Fabshield 81N1	AWS Spec
Avg. at -40°F (-40°C)	206 ft•lbs (280 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 LLC expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with 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.

# Fabshield® 81N1

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)	
5/64	(2.0)	All Position	170	17	70	(1.8)	2.7	(1.2)	1	(25)
5/64	(2.0)	All Position	190	18	80	(2.0)	3.4	(1.5)	1	(25)
5/64	(2.0)	Flat, Horizontal	220	19	85	(2.2)	3.9	(1.7)	1	(25)
5/64	(2.0)	Flat, Horizontal	240	20	95	(2.4)	5.0	(2.3)	1	(25)

- **Maintaining a proper welding process, such as pre-heat, interpass temperature, and material thickness may be critical depending on the types of steel being welded.**
- **All positions include:** Flat, Horizontal, Vertical down, and Overhead.

**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)	14-lb. (6.4kg) Coil
Net Pallet Weight	1,695 lb. (768 kg)
5/64 (2.0)	S228125-P01

#### CONFORMANCES AND APPROVALS:

- **AWS A5.29**, Class E71T8-Ni1 J H8, ASME SFA 5.29, Class E71T8-Ni1 J H8
- **ABS**, AWS E71T8-Ni1 J
- **EN ISO 17632-A**, T38 4 1Ni Y NO 1 H10
- **CE Marked** per CPR 305/2011
- **AS/NZS ISO**, 17632-A, T38 4 1Ni Y NO 1 H10

**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](mailto: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](http://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](http://www.hobartbrothers.com).

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

Fabshield is a trademark of Hobart Brothers LLC, Troy, Ohio.

**Revision Date: 250423** (Replaces 231125)

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