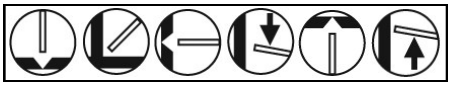
# Fabshield® 71K6

**AWS A5.29: E71T8-K6J H8**
**EN ISO 17632-A: T 42 4 1Ni Y 1 H10**

**WELDING POSITIONS:**



**FEATURES:**

- Excellent operator appeal
- Fast-freezing slag
- Easy slag removal
- High impact strengths at low temperatures
- No shielding gas required

**BENEFITS:**

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

**APPLICATIONS:**

- Offshore drilling rig
- Structural and general fabrication
- Ships
- Barges
- Construction
- Piping
- Transportation

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

**SHIELDING GAS:** Not required

**TYPE OF CURRENT:** Direct Current Electrode Negative (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 PROPERTIES*(Chem Pad):**

| Weld Metal Analysis (%) | Fabshield 71K6 | AWS Spec |
|---|---|---|
| Carbon (C) | 0.035 | 0.15 |
| Manganese (Mn) | 0.82 | 0.50-1.50 |
| Silicon (Si) | 0.07 | 0.80 |
| Sulphur (S) | 0.004 | 0.03 |
| Phosphorus (P) | 0.011 | 0.03 |
| Aluminum (Al) | 0.95 | 1.8 |
| Nickel (Ni) | 0.89 | 0.40-1.00 |
| Chromium (Cr) | 0.06 | 0.20 |
| Molybdenum (Mo) | 0.03 | 0.15 |
| Vanadium (V) | 0.004 | 0.05 |

**Note:** AWS specification single values are maximums.

**TYPICAL DIFFUSIBLE HYDROGEN*:**

| Hydrogen Equipment | Fabshield 71K6 | AWS Spec |
|---|---|---|
| (GAS CHROMATOGRAPHY) | 6.0 ml/100g | 8.0 ml/100g Maximum |

**TYPICAL MECHANICAL PROPERTIES* [Aged 48 Hrs. @ 200°F (93°C)]:**

| Mechanical Tests | Fabshield 71K6 | AWS Spec |
|---|---|---|
| Tensile Strength | 76,000 psi (522 MPa) | 70,000-90,000 ksi (490-620 MPa) |
| Yield Strength | 62,000 psi (425 MPa) | 58,000 ksi (400 MPa) Minimum |
| Elongation % in 2" (50 mm) | 29% | 20% Minimum |

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

| CVN Temperatures | Fabshield 71K6 | AWS Spec |
|---|---|---|
| Avg. at -40°F (-40°C) | 295 ft•lbs (400 Joules) | 20 ft•lbs (27 Joules) Minimum "J" requirements |



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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) |
|---|---|---|---|---|---|---|---|---|---|---|
| 5/64 | (2.0) | Flat & Horizontal | 250 | 20 | 98 | (2.5) | 5.0 | (2.2) | 1 | (25) |
| 5/64 | (2.0) | Flat & Horizontal | 280 | 20 | 126 | (3.2) | 5.8 | (2.6) | 1 | (25) |
| 5/64 | (2.0) | Overhead | 180 | 18 | 63 | (1.6) | 2.7 | (1.2) | 1 | (25) |
| 5/64 | (2.0) | Vertical Up | 200 | 18 | 87 | (2.2) | 4.1 | (1.8) | 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.**

All positions include: Flat, Horizontal, Vertical Up, 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. (6.3kg) Coil | 33-lb. (15kg) Vacuum-Packed Spool |
|---|---|---|---|
| 5/64 | (2.0) | S228625-P01 | S228625-053 |

**CONFORMANCES AND APPROVALS:**

- **AWS A5.29,** E71T8-K6J H8
- **AWS A5.29M,** E491T8-K6J H8
- **ASME SFA 5.29,** E71T8-K6J H8
- **ABS,** E71T8-K6J, all position DCEN, 5/64"
- **EN ISO 17632-A:** T 42 4 1Ni Y 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

**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 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.



**Revision Date: 160809** (Replaces 160414)
**640-M1, INDEX**

HOBART FILLER METALS