

HOBALLOY® 8018C1



AWS E8018-C1 H4

WELDING POSITIONS:



FEATURES:

- Excellent arc characteristics
- Low spatter level
- Quick and easy slag removal
- Low moisture reabsorption
- Low smoke level
- Low hydrogen, less than 4 ml/100 g

BENEFITS:

- Stable, easy to control arc
- Improves weld bead appearance, higher deposition
- Reduces clean-up time
- Prevents starting porosity
- Welder safety and comfort
- Resistant to hydrogen-induced cracking

APPLICATIONS:

- Shipbuilding
- Piping
- Storage tanks

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP) or AC

RECOMMENDED WELDING TECHNIQUES:

- ARC LENGTH:** Very short arc
FLAT: Angle electrode 10°-15° from 90°
VERTICAL-UP: Use weaving techniques
VERTICAL-DOWN: Not recommended
OVERHEAD: Use slight weaving motion within the puddle

STORAGE: After opening, store in holding oven (220°F to 350°F) until used.

RECONDITIONING If exposed to atmosphere for extended periods, reconditioned for one (1) hour at 600°F.

TYPICAL WELD METAL PROPERTIES* (Chem Pad):

Weld Metal Analysis (%)		AWS Spec
Carbon (C)	0.04	0.12 max
Manganese (Mn)	1.04	1.25 max
Phosphorus (P)	0.01	0.03 max
Sulphur (S)	0.02	0.03 max
Silicon (Si)	0.44	0.80 max
Nickel (Ni)	2.44	2.00 - 2.75

TYPICAL MECHANICAL PROPERTIES* (SR):

Mechanical Tests	Stress Relieved 1 hour at 1125°F	AWS Spec
Tensile Strength	93,000 psi (643 MPa)	80,000 psi (550 MPa)
Yield Strength	79,000 psi (543 MPa)	67,000 psi (460 MPa)
Elongation % in 2"	26%	19%

TYPICAL CHARPY V-NOTCH IMPACT VALUES* (SR):

CVN Temperatures	Stress Relieved 1 hour at 1125°F	AWS Spec (min)
Avg. at -75°F (-59°C)	59 ft•lbs (80 Joules)	20 ft•lbs (27 Joules)

TYPICAL DIFFUSIBLE HYDROGEN:

Hydrogen Equipment		AWS Spec
(GAS CHROMATOGRAPHY)	2.9 ml/100 g	<4.0 ml/100g

*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 A5.5 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.

HOBALLOY® 8018C1

Diameter		Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps	Deposition Rate	
Inches	mm					lbs/hr	kg/hr
3/32	2.4	DCEP or AC	70	100	110	2.0	0.91

- **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, reduce amperages shown by 15%.

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		Length		50-lb (22.6 kg) Can
Inches	mm	Inches	mm	
3/32	2.4	14	355	S125132-035

CONFORMANCES AND APPROVALS:

- AWS A5.5, E8018-C1 H4
- ASME SFA 5.5, F-4, A-10, E8018-C1 H4
- ABS E8018-C1 H4
- EN ISO 2560-A E46 4 Z B 3 2 H5
- CE Marked per CPR 305/2011

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.

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

Revision Date: 250225 (Replaces 241114)

613-D, INDEX

