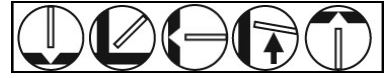


HOBALLOY[®] 7018A1



AWS 7018A1 H4R

WELDING POSITIONS:



FEATURES:

- Low moisture pick-up
- Low hydrogen, less than 4 ml/100 g
- Quick and easy slag removal
- Low spatter level
- Good arc characteristics

BENEFITS:

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

APPLICATIONS:

- Pressure vessels

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

RECOMMENDED WELDING TECHNIQUES:

- GENERAL:** Electrode positive, work negative (DCEP) or AC
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)	0.03	0.12 max
Manganese (Mn)	0.77	0.90 max
Phosphorus (P)	0.02	0.03 max
Sulphur (S)	0.01	0.03 max
Silicon (Si)	0.42	0.80 max
Molybdenum (Mo)	0.52	0.40 - 0.65

TYPICAL MECHANICAL PROPERTIES* (SR) (1150°F for 1 hr.):

		AWS Spec
Tensile Strength	85,000 psi (587 MPa)	70,000 psi (480 MPa)
Yield Strength	74,000 psi (507 MPa)	57,000 psi (390 MPa)
Elongation % in 2"	28%	25%

TYPICAL CHARPY V-NOTCH IMPACT VALUES*:

Not required

TYPICAL DIFFUSIBLE HYDROGEN:

Hydrogen Equipment		AWS Spec
(GAS CHROMATOGRAPHY)	3.0 ml/100 g	—

*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.

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Diameter Inches	mm	Type of Power	Minimum Amps	Optimum* Amps	Maximum Amps
3/32	2.4	DCEP or AC	70	100	110
1/8	3.2	DCEP or AC	90	135	160
5/32	4.0	DCEP or AC	130	170	220

*For out of position welding, reduce amperages shown by 15%.

TYPICAL DEPOSITION DATA (at optimum):

Diameter Inches	mm	Type of Power	Amps	Deposition Rate lbs/hr
3/32	2.4	DCEP	100	2.65
1/8	3.2	DCEP	135	2.90
5/32	4.0	DCEP	170	4.16

*Allowance made for 2" stub loss included.

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

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	Length Inches	mm	50-lb Can
3/32	2.4	14	355	S125032-035
1/8	3.2	14	355	S125044-035
5/32	4.0	14	355	S125051-035

CONFORMANCES AND APPROVALS:

- **AWS A5.5**, E7018A1 H4R
- **ASME SFA 5.5**, F-4, A-2, E7018-A1
- **ABS** E7018-A1

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: 201209 (Replaces 160418)
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