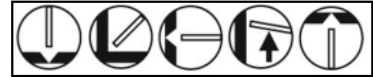


Formula XL[®]-550 (H4)



AWS A5.20: E71T-1CJ H4, E71T-9CJ H4, E71T-12CJ H4

WELDING POSITIONS:



FEATURES:

- High impact toughness at low temperatures
- Low diffusible hydrogen weld deposit
- High average CTOD value
- High-deoxidizer formulation
- Easy slag removal

BENEFITS:

- Resists cracking in severe applications
- Minimizes risk of underbead cracking
- Resist crack formation and propagation
- Reduces surface preparation requirements, increases productivity
- Reduces clean-up time, minimizes risk of inclusion

APPLICATIONS:

- Non-alloyed and fine grain steels
- Single or multi-pass welding
- Structural applications
- Earthmoving equipment
- Storage vessels
- Shipbuilding
- Offshore
- Thick section weldments

SLAG SYSTEM: Fast-freezing, rutile type, flux-cored wire

SHIELDING GAS: 100% Carbon Dioxide (CO₂), 35-50 cfh (17-24 l/min)

TYPE OF CURRENT: Direct Current Electrode Positive (DCEP)

STANDARD DIAMETERS: 0.045" (1.2 mm), 0.052" (1.4 mm)

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 (%)	100% CO ₂	AWS Spec
Carbon (C)	0.03	0.12
Manganese (Mn)	1.13	1.60
Silicon (Si)	0.20	0.90
Phosphorus (P)	0.006	0.030
Sulphur (S)	0.006	0.030
Nickel (Ni)	0.42	0.50

Note: AWS specification single values are maximums.

TYPICAL DIFFUSIBLE HYDROGEN*:

Hydrogen Equipment	100% CO ₂	AWS Spec
(GAS CHROMATOGRAPHY)	3.3 ml/100g	4.0 ml/100g Maximum

TYPICAL MECHANICAL PROPERTIES*:

Mechanical Tests	As Welded		PWHT 13 Hrs. @ 1150°F (621°C)	
	100% CO ₂	AWS Spec	100% CO ₂	AWS Spec
Tensile Strength	83,000 psi (572 MPa)	70,000-90,000 psi (490-620 MPa)	81,000 psi (558 MPa)	Not Specified
Yield Strength	76,000 psi (524 MPa)	58,000 psi (390 MPa) Minimum	70,000 psi (483 MPa)	Not Specified
Elongation % in 2" (50 mm)	25%	22% Minimum	28%	Not Specified

TYPICAL CHARPY V-NOTCH IMPACT VALUES*:

CVN Temperatures	As Welded		PWHT 13 Hrs. @ 1150°F (621°C)	
	100% CO ₂	AWS Spec	100% CO ₂	AWS Spec
Avg. at 0°F (-20°C)	109 ft•lbs (148 Joules)	20 ft•lbs. (27 Joules) Minimum	—	Not Specified
Avg. at -40°F (-40°C)	90 ft•lbs (122 Joules)	20 ft•lbs. (27 Joules) Minimum "J" Requirements	77 ft•lbs (104 Joules)	Not Specified
Avg. at -50°F (-45°C)	85 ft•lbs (115 Joules)	Not Specified	71 ft•lbs (96 Joules)	Not Specified

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and Hobart Brothers Company expressly disclaims any liability incurred from any reliance thereon. Typical data are those obtained when welded and tested in accordance with AWS A5.20 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 Company.

Formula XL[®]-550 (H4)

Diameter Inches (mm)	Weld Position	Amps	Volts	Wire-Feed Speed		Deposition Rate		Contact Tip to Work Distance	
				in/min	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
0.045 (1.2)	All Position Flat & Horizontal	200	24	280	(7.1)	4.0	(1.8)	3/4	(19)
0.045 (1.2)		225	26	355	(9.0)	5.0	(2.3)	1	(25)
0.052 (1.4)	All Position Flat & Horizontal	225	24	285	(7.2)	6.7	(3.0)	3/4	(19)
0.052 (1.4)		250	27	335	(8.5)	7.5	(3.4)	1	(25)

- **Maintaining a proper welding procedure - including preheat and interpass temperatures - may be critical depending on the type and thickness of steel being welded.**
- **See Above:** This information was determined by welding with 100% Carbon Dioxide (CO₂) shielding gas with a flow rate between 35-50 cfh (17-24 l/min).
- **All positions include:** Flat, Horizontal, Vertical Up, 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)	10-lb. (4.5kg) Vacuum-Packed Spool	33-lb. (15kg) Vacuum-Packed Spool
0.045 (1.2)	—	S245112-053
0.052 (1.4)	S245115-032	S245115-053

CONFORMANCES AND APPROVALS:

- **AWS A5.20**, E71T-1CJ H4, E71T-9CJ H4, E71T-12CJ H4
- **AWS A5.20M**, E491T-1CJ H4, E491T-9CJ H4, E491T-12CJ H4
- **ASME SFA 5.20**, E491T-1CJ H4, E491T-9CJ H4, E491T-12CJ H4
- **ABS**, 100% CO₂, 4YSA H5
- **CWB**, 100% CO₂, E491T-9-H4
- **DNV**, 100% CO₂, IV YMS H5

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

Material 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.

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Revision Date: 150508 (Replaces 140107)
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