

AWS E71T-8JD H8 / E491T-8JD H8

Fabshield® XLR-8™**DESCRIPTION:**

Fabshield XLR-8 has been specifically designed for the demanding application of structural steel erection. This outstanding self-shielded, flux-cored wire produces a stable arc within a wide range of parameters. It is capable of depositing X-ray quality welds in all positions and is especially well suited for producing vertical-up welds at high current levels for increased productivity. It is designed for single and multiple pass applications and will produce flat weld beads with excellent slag removal. Fabshield XLR-8 will produce welds with excellent mechanical properties under a wide range of heat input. Meets the new D designation under AWS A5.20/A5.20M:2005. Usable under AWS D1.8 for use on Demand Critical welds. Designed to be used with constant voltage (CV) power sources.

APPLICATIONS:

Structural steel erection, heavy equipment repair, bridge construction, ship and barge construction.

FEATURES:

- Welds out of position at high currents
- Low Hydrogen weld deposit
- Excellent slag removal
- No shielding gas required
- High impact strength at low temperatures
- Excellent mechanical properties under a wide range of heat input.

BENEFITS:

- Increases productivity
- Provides increased resistance to cracking, promotes X-ray quality welds
- Increases productivity, eliminates slag entrapment
- Suitable for welding outdoors
- Resist cracking in severe applications
- Usable under AWS D1.8 for use on Demand Critical welds

SHIELDING GAS: None required

TYPICAL WELD METAL PROPERTIES* (Chem Pad):**Weld Metal Analysis**

Carbon (C)	0.19
Manganese (Mn)	0.51
Silicon (Si)	0.17
Phosphorus (P)	0.009
Sulphur (S)	0.006
Aluminum (Al)	0.51

TYPICAL DIFFUSIBLE HYDROGEN* (Gas Chromatography): Less than 6.7 ml/100 g

TYPICAL MECHANICAL PROPERTIES*

(AGED 48 HR @ 200°F (93.3°C))

Tensile Strength:	84,100 psi (580 MPa)
Yield Strength:	67,600 psi (470 MPa)
Elongation % in 2" (50.8 mm)	25%

D-DESIGNATION PER AWS A5.20/A5.20M:2005

Low Heat Input (Avg.30 kJ/in) (Fast cooling rate)	High Heat Input (Avg.80 kJ/in) (Slow cooling rate)
87,500 psi (603 MPa)	78,800 psi (544 MPa)
68,500 psi (473 MPa)	62,800 psi (433 MPa)
22.5%	28%

TYPICAL CHARPY-V-NOTCH IMPACT VALUES:**AS WELDED**

Avg. at +70°F (+20°C)	N/A
Avg. at 0°F (-18°C)	N/A
Avg. at -20°F (-29°C)	40 ft•lbs (54 Joules)
Avg. at -40°F (-40°C)	31 ft•lbs (42 Joules)

D-DESIGNATION PER AWS A5.20/A5.20M:2005

Low Heat Input (Avg.30 kJ/in) (Fast cooling rate)	High Heat Input (Avg.80 kJ/in) (Slow cooling rate)
77 ft•lbs (104 Joules)	73 ft•lbs (99 Joules)
60 ft•lbs (81 Joules)	50 ft•lbs (68 Joules)
Not required	Not required
Not required	Not required

CONFORMANCES AND APPROVALS:

- AWS A5.20/A5.20M, Class E71T-8J H8 • ASME SFA 5.20, Class E71T-8JD H8
- ABS Grade 3SA, 3YSA H10 • CWB Class E491T-8JD H8

*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.



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WELDING DATA:

The information listed below was determined by welding performed with DCEN welding current.

Diameter Inches mm	Weld Position	Amps	Volts*	Wire Feed Speed		Deposition Rate		Stickout	
				in/min	m/min	lbs/hr	(kg/hr)	±1/4"	±6.4 mm
1/16" 1.6	Flat, Horizontal	160	19	125	(3.17)	2.82	(1.28)	1"	(25.4)
	Flat, Horizontal	265	22	275	(6.98)	7.25	(3.29)	1"	(25.4)
	Flat, Horizontal	275	23	315	(8.00)	8.31	(3.77)	1"	(25.4)
	Vertical-Up	160	18	125	(3.17)	2.82	(1.28)	1"	(25.4)
	Vertical-Up	210	21	187	(5.58)	4.67	(2.12)	1"	(25.4)
	Vertical-Up	260	23	270	(6.85)	7.31	(3.32)	1"	(25.4)
	Overhead	180	18	145	(3.68)	3.27	(1.48)	1"	(25.4)
	Overhead	230	22	210	(5.33)	5.54	(2.51)	1"	(25.4)
	Overhead	255	23	250	(6.35)	6.25	(2.84)	1"	(25.4)
.072" 1.8	Flat, Horizontal	170	18	100	(2.54)	3.24	(1.47)	1"	(25.4)
	Flat, Horizontal	265	22	200	(5.08)	7.51	(3.41)	1"	(25.4)
	Flat, Horizontal	315	23	280	(7.11)	10.65	(4.83)	1"	(25.4)
	Vertical-Up	165	18	100	(2.54)	3.24	(1.47)	1"	(25.4)
	Vertical-Up	245	22	170	(4.31)	6.30	(2.86)	1"	(25.4)
	Vertical-Up	265	23	200	(5.08)	7.51	(3.41)	1"	(25.4)
	Overhead	200	18	100	(2.54)	3.24	(1.47)	1"	(25.4)
	Overhead	230	22	160	(4.06)	5.93	(2.69)	1"	(25.4)
	Overhead	265	22	200	(5.08)	7.51	(3.41)	1"	(25.4)
5/64" 2.0	Flat, Horizontal	200	18	100	(2.54)	4.04	(1.83)	1.25"	(31.7)
	Flat, Horizontal	280	22	200	(5.08)	8.08	(3.67)	1.25"	(31.7)
	Flat, Horizontal	340	24	280	(7.11)	11.17	(5.07)	1.25"	(31.7)
	Vertical-Up	200	18	100	(2.54)	4.04	(1.83)	1.25"	(31.7)
	Vertical-Up	255	22	160	(4.06)	6.47	(2.94)	1.25"	(31.7)
	Vertical-Up	280	23	200	(5.08)	8.19	(3.73)	1.25"	(31.7)
	Overhead	230	18	125	(3.17)	5.05	(2.29)	1"	(25.4)
	Overhead	265	22	160	(4.06)	6.47	(2.94)	1"	(25.4)
	Overhead	295	22	200	(5.08)	8.08	(3.67)	1"	(25.4)

*Designates voltage at work piece.

Bold - Optimum Parameters

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		12lb Vacuum Packed	20lb Vacuum Packed	33lb Vacuum Packed	50lb Coil
Inches	mm	8" Plastic Spool	10" Fiber Spool	12" Fiber Spool	
1/16"	1.6	S225719-070	S225719-082	S225719-053	
0.072"	1.8	S225724-070	S225724-082	S225724-053	S225724-014
5/64"	2.0	S225725-070	S225725-082	S225725-053	S225725-014

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, 550 NW LeJune Road, Miami, FL 33126; OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C.

Material Safety Data Sheets on any Hobart Brothers Company product may be obtained from Hobart Customer Service.

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

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