FabCO[®] 316LT1

AWS/ASME A5.22: E316LT1-1/4



WELDING POSITIONS:

FEATURES:	BENEFITS:	
 All position Self-detaching slag Spray-like arc transfer High moisture resistance 	 Welds extremely well in vertical (up) position, as w Excellent welder appeal Low spatter and less clean-up Good weld soundness and extended shelf-life 	rell as flat, horizontal & overhead

APPLICATIONS:

• Used for joining and cladding of Type 316, 316L, CF-3M and CF-8M stainless steel.

SLAG SYSTEM OR WIRE TYPE: Fast-freezing, flux-cored wire

SHIELDING GAS: 100% Carbon Dioxide (CO₂), 75% Argon (Ar)/25% 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)

RE-DRYING: Not recommended

STORAGE: Product should be stored in a dry, enclosed environment and in its original intact packaging

	I YPICAL WELD METAL CHEMISTRY			
Weld Metal Analysis (%)	100% CO2	75% Ar/25% CO2	AWS Spec	(Chem Pad):
Carbon (C)	0.026	0.022	0.04	
Manganese (Mn)	1.23	1.46	0.5-2.5	
Silicon (Si)	0.538	0.753	1.0	
Phosphorus (P)	0.020	0.021	0.040	
Sulphur (S)	0.005	0.006	0.030	
Nickel (Ni)	12.75	12.59	11.0-14.0	
Chromium (Cr)	18.70	19.05	17.0-20.0	
Molybdenum (Mo)	2.50	2.20	2.0-3.0	

Mechanical Tests	100% CO ₂	75% Ar/25% CO₂	AWS Spec
Tensile Strength	82,000 psi (565 MPa)	84,200 psi (581 MPa)	70,000 psi (480 MPa) Minimum
Yield Strength	60,000 psi (414 MPa)	58,900 psi (406 MPa)	Not required
Elongation % in 2" (50 mm)	39%	32%	30% Minimum
Delong Ferrite Number	9	10	Not required

^{*}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 the AWS A5.22 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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Dia Inches	meter (mm)	Weld Position	Amps	Volts	Wire Sp in/min	e-Feed eed (m/min)	Depo Ra Ibs/hr	osition ate (kg/hr)	Conta Work Inches	ict Tip to Distance (mm)
0.045	(1.2)	All Position	140	24	210	(5.3)	5.0	(2.3)	5/8	(16)
0.045	(1.2)	All Position	160	25	275	(7.0)	6.0	(2.7)	5/8	(16)
0.045	(1.2)	Flat & Horizontal	200	29	380	(9.7)	8.0	(3.6)	5/8	(16)

- Maintaining a proper welding procedure including pre-heat and interpass temperatures may be critical depending on the type and thickness of steel being welded.
- The above information was determined by welding using 100% CO₂ shielding gas with a flow rate between 35-50 cfh (17-24 l/min). When welding using 75% Argon (Ar)/25% Carbon Dioxide (CO₂) shielding gas, decrease voltage by 1-2 volts.

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		27.5-lb. (12.5kg)		
Inches (mm)		Spool		
0.045	(1.2)	S689312-078		

CONFORMANCES AND APPROVALS:

- AWS A5.22, E316LT1-1/4
- ASME SFA 5.22, E316LT1-1/4
- ABS, 100% CO₂, E316LT1-1 (0.045" diameter, all position)
- CWB, Ar + 20% CO₂ to 100% CO₂, E316LT1-1, E316LT1-4, (1.2 mm diameter electrode)
- DNV, VL 316L (1.2 mm) Flat, Vertical-Up and Overhead
- Lloyd's Register, DXVuO, BF, 316L S

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 <u>Applications.Engineering@hobartbrothers.com</u>

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



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design and/or specifications without notice.