

.045", .052" - AWS E71T-1C, E71T-12CJ H4
1/16" - AWS E71T-1C, E71T-12CJ H8

Formula XL[®]-550

DESCRIPTION:

Formula XL-550 is formulated with added deoxidizers to allow you to weld through rust, mill scale and some primers with little or no pre-cleaning. Outstanding, all-position Formula XL-550 is designed to weld mild steels, producing a high-quality, X-ray clear weld deposit that delivers high impact values at low temperatures. Good wet-in action produces a bead contour that is flat to slightly convex with light slag that keeps clean-up time to a minimum.

APPLICATIONS:

Ships, storage vessels, structures, earthmoving equipment and piping.

FEATURES:

- Low diffusible hydrogen
 - .045", .052" - less than 4 ml/100g
 - 1/16" - less than 8 ml/100g
- Exceeds AWS requirement of 20 ft-lbs at -40°F
- Outstanding weldability in all positions

BENEFITS:

- Less preheat, less chance of under bead cracking
- Excellent toughness at low temperatures
- No worm tracks under normal welding conditions

SHIELDING GAS: 100% CO₂

TYPE OF CURRENT: DCEP

TYPICAL WELD METAL PROPERTIES*(Chem Pad):

Weld Metal Analysis	100% CO ₂
Carbon (C)	0.05
Manganese (Mn)	1.17
Silicon (Si)	0.25
Phosphorus (P)	0.012
Sulphur (S)	0.014
Nickel (Ni)	0.50

TYPICAL DIFFUSIBLE HYDROGEN* (Gas Chromatography): .045", .052" - 3.32 ml/100g
1/16" - 4.2 ml/100g

TYPICAL MECHANICAL PROPERTIES*:

	(As Welded)	Stress relieved 2 hrs. @ 1150°F
Tensile Strength	84,000 psi (585 MPa)	80,500 psi (555 MPa)
Yield Strength	77,300 psi (533 MPa)	71,800 psi (495 MPa)
Elongation % in 2"	26.6%	29.2%

TYPICAL CHARPY V-NOTCH IMPACT VALUES*:

	(As Welded)	Stress relieved 2 hrs. @ 1150°F
Avg. at 0°F (-18°C)	110 ft•lbs (137 Joules)	Avg. at -20°F 98 ft•lbs. (133 Joules)
Avg. at -40°F (-40°C)	101 ft •lbs (150 Joules)	

*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

CONFORMANCES AND APPROVALS:

- .045", .052" - AWS A5.20, E71T-1C, E71T-12CJ H4 • 1/16" - AWS A5.20, E71T-1C, E71T-12CJ H8, ASME SFA 5.20, E71T-1
- ABS 100% CO₂ 3SA, 3YSA H5
- CWB 100% CO₂ E491T-9 H8 - .045" - 1/16"
- Lloyd's Register of Shipping 100% CO₂ 3Y40S H10
- MIL-E-24403

WELDING DATA:

The information listed below was determined using 100% CO₂ shielding gas with flow range between 35 to 40 cubic feet per hour. Welding was performed in position designated below with DCEP welding current.

Diameter		Optimum Welding Parameters	Weld Position	Amps	Volts	Wire Feed Speed In/Min	Deposition Rate lbs/hr	Stickout ±1/4"
inches	mm							
.045"	1.2		Flat, Horizontal	230	26.0	355	5.0	3/4"
.045"	1.2	*	Vertical-up	195	23.0	280	4.0	3/4"
.045"	1.2	*	Overhead	195	24.0	280	4.0	3/4"
.052"	1.4	*	Flat, Horizontal	250	27.0	335	7.5	3/4"
.052"	1.4	*	Vertical-up	225	23	285	6.7	3/4"
.052"	1.4	*	Overhead	225	24	285	6.7	3/4"
1/16"	1.6	*	Flat, Horizontal	280	27.0	210	7.5	3/4"
1/16"	1.6	*	Vertical-up	230	23.0	155	6.2	3/4"
1/16"	1.6	*	Overhead	230	24.0	155	6.2	3/4"

CAUTION:

Consumers should be thoroughly familiar with the safety precautions shown on the warning label posted in each shipment and in the American National Standards Z49.1, "Safety in Welding and Cutting", published by the American Welding Society, 550 NW LeJeune Road, Miami, Florida 33126; 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.

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

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