

SubCOR™ SL 742



AWS A5.23: ECF5
EN ISO 26304: T3 Ni2.5CrMo

FEATURES:

- Specially formulated to offer enhanced impact toughness than can be achieved with common carbon steel wires
- Unique manufacturing process provides unmatched product consistency
- Seamless cored wire
- Copper coated wire
- Cored wire can offer improved deposition rates compared to solid wires at comparable amperages
- Cored wire offers broader penetration profiles compared to solid wires at comparable welding parameters

BENEFITS:

- Helps to minimized the risk of cracking in demanding service conditions
- Provides excellent uniformity of chemical properties, mechanical properties, and bead appearance
- Virtually eliminates moisture absorption, produces a low-hydrogen weld deposit for minimized risk of hydrogen-induced cracking
- Offers optimal consistency of electrode feeding and electrical transfer
- Provides potential to increase travel speed for improved productivity and reduced heat input
- Helps to prevent burn-through when welding at high currents on root passes and relatively thin materials

APPLICATIONS:

- Crane fabrication
- Pressure vessels
- Transportation frames
- Casting repair
- Structural fabrication
- Pipeline double jointing

WIRE TYPE: Wire Type

RECOMMENDED FLUXES: SWX 150

CURRENT: Direct Current Electrode Positive (DCEP), Alternating Current (AC)

STANDARD DIAMETERS: 3/32" (2.4 mm), 1/8" (3.2 mm)

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

RE-DRYING: Not recommended

AWS CLASSIFICATIONS:

With Flux	Condition	Specifications	Classification (US Customary Units)	Classification (SI Units)
SWX 150	As-Welded	A5.23/A5.23M	F11A8-ECF5-F5	F76A6-ECF5-F5
	PWHT*	A5.23/A5.23M	F11P6-ECF5-F5	F76P5-ECF5-F5

Note: Stress-Relieved 1 Hr. @ 1050°F (565°C)

EN ISO CLASSIFICATIONS:

With Flux	Condition	Specifications	Classification
SWX 150	As-Welded	EN ISO 26304	S 69 6 FB T3 Ni2.5CrMo
	PWHT*	EN ISO 26304	S 69 6 FB T3 Ni2.5CrMo

Note: Stress-Relieved 1 Hr. @ 1050°F (565°C)

TYPICAL WELD DEPOSIT CHEMICAL COMPOSITION*:

With Flux	% C	% Mn	% Si	% P	% S	% Cu	% Cr	% Ni	% Mo
SWX 150	0.07	1.57	0.50	0.018	0.007	0.10	0.35	2.05	0.33

*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 A5.23 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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TYPICAL MECHANICAL PROPERTIES*:

With Flux	Condition	Tensile Strength	Yield Strength	Elongation % in 2" (50 mm)
SWX 150	As-Welded	122 ksi (841 MPa)	112 ksi (772 MPa)	22%
	PWHT*	124 ksi (855 MPa)	110 ksi (758 MPa)	22%

Note: Stress-Relieved 1 Hr. @ 1050°F (565°C)

TYPICAL CHARPY V-NOTCH IMPACT VALUES*:

With Flux	Condition	Avg. at -40°F (-40°C)	Avg. at -80°F (-60°C)	Avg. at -100°F (-70°C)
SWX 150	As-Welded	65 ft-lbs (88 J)	55 ft-lbs (75 J)	—
	PWHT**	55 ft-lbs (75 J)	—	25 ft-lbs (34 J)

Note: Stress-Relieved 1 Hr. @ 1050°F (565°C)

TYPICAL OPERATING PARAMETERS*:

Diameter		Amps	Volts	Wire Feed Speed		Deposition Rate		Contact Tip to Work Distance	
Inches	(mm)			Inches	(m/min)	lbs/hr	(kg/hr)	Inches	(mm)
3/32	(2.4)	300	29	85	(2.16)	7.7	(3.5)	1.25	(32)
3/32	(2.4)	390	30	125	(3.18)	11.2	(5.1)	1.25	(32)
3/32	(2.4)	490	37	175	(4.45)	15.6	(7.1)	1.25	(32)
3/32	(2.4)	600	38	240	(6.10)	21.2	(9.6)	1.25	(32)
3/32	(2.4)	650	39	270	(6.86)	23.9	(10.8)	1.25	(32)
5/32	(4.0)	450	30	45	(1.14)	11.2	(5.1)	1.5	(38)
5/32	(4.0)	550	33	58	(1.47)	14.2	(6.4)	1.5	(38)
5/32	(4.0)	650	35	69	(1.75)	16.9	(7.7)	1.5	(38)
5/32	(4.0)	775	38	90	(2.29)	21.9	(9.9)	1.5	(38)
5/32	(4.0)	925	40	115	(2.92)	27.9	(12.7)	1.5	(38)

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

Parameters are provided for informational purposes only. All values are approximate. The optimal voltage may vary (typically ±2 volts) depending on the choice of flux, material thickness, joint design, and other variables specific to the application.

Likewise, actual deposition rate may vary depending on choice of flux and contact tip to work distance.

STANDARD PACKAGING: 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	55-lb. (25kg) Wire Basket
3/32" (2.4 mm)	522241025H
5/32" (4.0 mm)	522401025H

CONFORMANCES AND APPROVALS:

With Flux	ABS	BV	CE	DNV-GL
SWX 150	5YQ690 H5	A 5Y69M H5	X	V Y69MS(H5)

Limitations (diameter, position, etc.) may exist. Please refer to product approval certificates for more information.

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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