



# TM-123

**SELF-SHIELDED FLUX-CORED WIRE**  
**AWS E71T-GS**

080403 (replaces-060620)

**TM-123** offers extremely high operator appeal in applications involving thin gauge galvanized or carbon steels. Arc action is smooth and stable, excellent at low welding currents. DCEN (straight polarity) operation facilitates the welding of sections as thin as 18 gauge with little tendency for burn through. Good wetting action makes TM-123 well suited for the lap and butt joint welds encountered in body panel and sheet metal ductwork. With vertical down welding, bead geometry and appearance are excellent; spatter levels are low. TM-123 is very well suited for use in portable welding systems, as the small diameters perform well on portable 110-volt input welding machines. It is recommended only for single-pass welding and can be used in all position using no shielding gas.

**PRODUCT CHARACTERISTICS:**

- Uses DCEN (straight polarity) minimizing burn-through
- Designed specifically for welding thin gauge galvanized steels.
- Single pass weldments on galvanized and carbon steel sheet metal from 18 gauge up to 3/16".
- Very smooth arc, minimal spatter when applied to carbon steel.

**SPECIFICATIONS:**

E71T-GS per AWS A5.20, ASME SFA 5.20

**SHIELDING GAS:**

None

**WELDING POSITIONS:**

All positions

**STANDARD DIAMETERS:**

.030", .035", .045"

**WELD TEST PARAMETERS:**

TM-123 3/32" diameter electrode was welded at 400 amps (67 ipm), DCEN, and 20 volts with 1/2" electrical stickout. One weld bead was made in the flat position; the assembly was turned over and a second weld bead was deposited in the flat position on the opposite side of the assembly.

**TYPICAL MECHANICAL PROPERTIES\*:**

Transverse Tensile Strength	87,000 psi (600 MPa), base metal fracture
Longitudinal Guide Bend	Satisfactory

\*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 is 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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**TM-123**

SELF-SHIELDED FLUX-CORED WIRE  
AWS E70T-GS

**RECOMMENDED OPERATING PARAMETERS:**

Diameter, Electrical Stickout (ES) Position	Arc Voltage (volts)	Current DCEN (+) (amps)	Approx. Wire Feed Speed (in/min)	Deposition Rate (lbs/hr)
.030" 3/8" ± 1/2" Flat and Horizontal	14	25	55	0.3
	<b>16</b>	<b>125</b>	<b>225</b>	to
	18	200	565	5.4
.035" 3/8" ± 1/2" Flat and Horizontal	13	50	65	0.6
	<b>18</b>	<b>150</b>	<b>250</b>	to
	29	225	465	6.3
----- Vertical and Ovehead	13	75	52	0.6
	<b>18</b>	<b>150</b>	<b>250</b>	to
	19	175	300	4.2

**Bold:** Optimum parameters for welder appeal.

**Notice:**

Actual use of the product may produce varying results due to conditions and welding techniques over which Tri-Mark has no control, including, but not limited to, plate chemistry, weldment design, fabrication methods, electrode size, welding procedure, service requirements and environment. The purchaser is solely responsible for determining the suitability of Tri-Mark products for the purchaser's own use. Any prior representations shall not be binding. Tri-Mark disclaims any warranty of merchantability or fitness for any particular purpose with respect to its products.

**Caution:**

Consumers should be thoroughly familiar with the safety precautions shown on the Warning Label posted on each shipment in and in American National Standard Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW LeJeune Road, Miami, FL 33126, and OSHA Safety and Health Standards 29 CFR 1910, available from the U.S. Department of Labor, Washington, D.C. 20210.