



# TM-1101K3-C

**GAS-SHIELDED FLUX-CORED WIRE**  
AWS E111T1-K3CJ H8

070402 (replaces 060911)

**TM-1101K3-C** offers excellent arc stability and low spatter with CO<sub>2</sub> shielding gas. It also has a fast-freezing slag for all-position welding. These features, along with relatively low diffusible hydrogen levels, excellent slag removal, good impact values and high strength levels, make TM-1101K3-C a superior choice for welding higher-strength steels. It is recommended for single-and multiple-pass welding in all positions using 100% CO<sub>2</sub> shielding gas.

## PRODUCT CHARACTERISTICS:

- Designed for those applications requiring tensile strength above 110,000 psi
- Good CVN toughness
- Must be used with CO<sub>2</sub> shielding gas
- Relatively low diffusible hydrogen levels, typically below 5.0 ml/100 g
- Better penetration than the mixed gas version

## SPECIFICATIONS:

E111T1-K3CJH8 per AWS A5.29, ASME SFA 5.29  
ABS to AWS E110T1-K3C

## SHIELDING GAS:

100% CO<sub>2</sub>, 35-50 cfh

## WELDING POSITIONS:

All positions

## STANDARD DIAMETERS:

.045", .052", 1/16"

## WELD TEST PARAMETERS:

TM-1101K3-C 1/16" diameter electrode was welded using 100% CO<sub>2</sub> shielding gas with flow rate of 40 cfh, 275 amps (265 ipm), DCEP and 27 volts, with 3/4" electrical stickout and 300°± 25°F interpass temperature. A total of seven layers were welded, two passes for Layers 1 through 7. The direction of travel was reversed for each layer.

## TYPICAL UNDILUTED WELD METAL CHEMISTRY\*:

C	Mn	Si	P	S	Mo	Cr	Ni	V
0.07	1.55	0.34	0.009	0.017	0.37	0.03	1.97	0.02

## TYPICAL MECHANICAL PROPERTIES\*:

Tensile Strength 117,000 psi (807 MPa)  
Yield Strength 105,000 psi (724 MPa)  
Elongation 22%  
CVN @ -20°F (-29°C) 34 ft•bs (46 J)

\*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 A5.29 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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## RECOMMENDED OPERATING PARAMETERS:

The information below was determined by welding performed with 100% CO<sub>2</sub>s shielding gas at a flow rate of 35 cfh.

Diameter, Electrical Stickout (ES) Position	Arc Voltage (volts)	Current DCEP (+) (amps)	Approx. Wire Feed Speed (in/min)	Deposition Rate (lb/hr)
.045" 1/2" to 3/4" Flat and Horizontal	24	125	180	2.5
	<b>27</b> 31	<b>275</b> 325	<b>520</b> 675	to 15.0
Vertical and Overhead	24	125	180	2.5
	<b>25</b> 26	<b>200</b> 250	<b>315</b> 440	to 9.0
.052" 1/2" to 3/4" Flat and Horizontal	24	150	160	3.4
	<b>30</b> 32	<b>325</b> 375	<b>440</b> 570	to 16.2
Vertical and Overhead	24	150	160	3.4
	<b>25</b> 26	<b>200</b> 250	<b>225</b> 304	to 9.5
1/16" 1/2" to 3/4" Flat and Horizontal	23	175	130	3.9
	<b>29</b> 32	<b>350</b> 400	<b>335</b> 420	to 17.1
Vertical and Overhead	23	175	130	3.9
	<b>24</b> 26	<b>225</b> 275	<b>150</b> 235	to 8.3

**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 and in American National Standards Z49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW Lejeune Road, Miami, Florida, 33126, and OSHA Safety and Health Standards 29 CFR 1910, available from the U.S. Department of Labor, Washington, D.C. 20210.