

AWS E111T1-K3MJ H4

FabCO® 110K3M**DESCRIPTION:**

FabCo 110K3M is a gas-shielded tubular wire, which is specially designed for welding of high strength low alloy steels in offshore structure fabrication. Quenched and tempered steels, such as Grade N25 or Dillimax 690, usually require tensile strength above 115 ksi and -40°F Charpy Impact properties. This product can consistently meet those requirements in all welding positions. FabCO 110K3M uses 75% Ar/25% CO₂ mixed gas and offers high productivity along with good welder appeal. Maintaining a proper welding process, such as preheat and interpass temperature is critical in welding these types of steels.

APPLICATIONS: Offshore structural fabrication, quenched and tempered steels.

SHIELDING GAS: 75% Ar/25% CO₂

TYPE OF CURRENT: DCEP

TYPICAL WELD METAL PROPERTIES*(Chem Pad):

	75%Ar/25% CO ₂
Weld Metal Analysis	
Carbon (C)	0.05
Manganese (Mn)	2.04
Silicon (Si)	0.26
Phosphorus (P)	0.007
Sulphur (S)	0.014
Chromium (Cr)	0.12
Nickel (Ni)	1.84
Molybdenum (Mo)	0.37

TYPICAL MECHANICAL PROPERTIES:

	75% Ar/25% CO ₂
Tensile Strength	128,000 psi (883 MPa)
Yield Strength	124,000 psi (854 MPa)
Elongation % in 2"	15%

TYPICAL CHARPY V-NOTCH IMPACT VALUES*(AW):

	75 Ar/25% CO ₂
Avg. at -20°F (-29°C)	32 ft •lbs (43 Joules)

AWS Diffusible Hydrogen Testing Results: 3.35ml/100 g

CONFORMANCES AND APPROVALS:

- AWS A5.29, E111T1-K3MJ H4, ASME SFA 5.29, E111T1-K3MJ H4
- ABS 75% Ar/25% CO₂ E111T1-K3MJ H4

*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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WELDING DATA:

The information listed below was determined using 75% Ar/25%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	*	Vertical Up	175	23.5	280		1/2"
				180	24.5	300		
				195	27.0	350		
.045	1.2	*	Overhead	170	25	300		1/2"
				190	26	325		
				195	27	350		
.045	1.2	*	Flat & Horizontal	200	26	300		1/2"
				220	27	400		
				225	27	450		
				250	28	500		

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.

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