HOBART FILLER METALS

Certificate of Conformance to Requirements for Welding Electrode

Product Type:	**FabCOR 80D2**
Classification:	**E90C-D2 H4**
Specifications:	**AWS A5.28/A5.28M; ASME SFA 5.28**
Diameter Tested:	**1/16"**
Date Tested:	**8/13/2026**
Date Generated:	**8/19/2026**

This is to certify that the product named above and supplied on the referenced order number is of the same classification, manufacturing process, and material requirements as the material which was used for the test that was concluded on the date shown, the results of which are shown below. All tests required by the specifications shown for classification were performed at that time and the material tested met all requirements. It was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO 9001, ANSI/AWS A5.01, and other specification and Military requirements, as applicable. This document supplies actual test results of non-specific inspection in conformance with the requirements of EN 10204, type 2.2 certification.

THE STEEL USED IN THIS LOT OF MATERIAL WAS MELTED AND MANUFACTURED IN THE U.S.A.

Test Settings

Shielding Medium	Amps / Polarity	Volts	WFS in/min(m/min)	ESO in(mm)	Preheat F(C)	Interpass F(C)	Travel Speed in/min(cm/min)
M20-ArC-10	328.2 / DCEP	25.3	260 (6.6)	3/4 (19)	300(149)	300(149)	12.4 (31.5)
M22-ArO-5	347.1 / DCEP	25.2	265 (6.7)	3/4 (19)	300(149)	300(149)	13.2 (33.5)

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
M20-ArC-10	PF3210	Aged 48 Hrs 220F	102,000 (703)	93,000 (640)	25
M22-ArO-5	PF3238	Aged 48 Hrs 220F	99,000 (683)	90,000 (623)	25

Mechanical Properties - Impact

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
M20-ArC-10	PF3210	As Welded	-20 (-29)	41,51,41 (56,69,56)	44 (60)	Charpy-V-Notch
M22-ArO-5	PF3238	As Welded	-20 (-29)	55,36,39 (75,49,53)	43 (59)	Charpy-V-Notch

Ref.No.	Radiographic Inspection	Fillet Weld Test					
PF3210	Conforms	Horizontal :		Overhead :		Vertical :	
PF3238	Conforms	Horizontal :		Overhead :		Vertical :	

Chemical Analysis

Shielding Medium / Ref. No	C	Mn	P	S	Si	Cu	Cr	V	Ni	Mo	Al	Ti	Nb	Co	B	W	Sn	Fe	Sb	N	Mg	Zn	Be	Sb	As
M20-ArC-10 / PF3210	0.06	1.45	0.008	0.010	0.69	0.06	0.05	< .01	0.02	0.50															
M22-ArO-5 / PF3238	0.07	1.33	0.009	0.011	0.63	0.05	0.05	< .01	0.02	0.49															

Hydrogen Analysis

Shielding Medium	Polarity	Ref. No.	Diffusible Hydrogen Collected per AWS A4.3
M20-ArC-10	DCEP	HB9357	2 ml/100g of weld metal for 1/16 in diameter 19% relative humidity
M22-ArO-5	DCEP	HB9358	3 ml/100g of weld metal for 1/16 in diameter 21% relative humidity

James A. Owens, Q.A. Specialist

Certification and Limited Warranty - Data for the above supplied product are those obtained when welded and tested in accordance with the above specification. All tests for the above classification were satisfied. Other tests and procedures may produce different results.