



**Certificate of Conformance  
to Requirements for Welding Electrode**

Product Type: FabCO 105D2 .045 33 SP  
Classification: E100T5-D2C  
Specifications: AWS A5.29-2010; ASME SFA5.29  
Diameter Tested: .045" / 3/32"  
Date Tested: 4/18/2016  
Date Generated: 5/17/2016

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)
SG-C 100%CO2	250 / DCEP	27	450 (11.4)	3/4 (19)	300(149)	300(149)	10 (25.4)
SG-C 100%CO2	425 / DCEP	26	180 (4.6)	1 (25)	300(149)	300(149)	12 (30.5)

**Mechanical Properties - Tensile**

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
SG-C 100%CO2	pd0318	SR 1 Hr @ 1150F	109,000 ( 752 )	89,000 ( 615 )	24
SG-C 100%CO2	PD1157	SR 1 Hr @ 1150F	103,000 ( 710 )	91,000 ( 626 )	24

**Mechanical Properties - Impact**

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
SG-C 100%CO2	PD0315	SR 1 Hr @ 1150F	-40 (-40)	55,61,55 (75,83,75)	57 ( 77 )	Charpy-V-Notch
SG-C 100%CO2	PD0318	SR 1 Hr @ 1150F	-40 (-40)	55,55,44 (75,75,60)	51 ( 70 )	Charpy-V-Notch

Ref.No.	Radiographic Inspection	Fillet Weld Test			
PD0318	Conforms	Horizontal :	Overhead :	Vertical :	
PD0315	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
SG-C 100%CO2 / CB99041	0.08	2.23	0.011	0.014	0.48	0.05	0.05	< .01	0.02	0.40													
SG-C 100%CO2 / CD03659	0.11	1.85	0.014	0.014	0.67	0.06	0.05	< .01	0.02	0.37													

Dave Thomas, Quality Assurance Rep.

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. Hobart Brothers produces welding consumables under continuing quality assurance programs audited and approved by the American Bureau of Shipping ("ABS").