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July 23, 2024

Letter report number 103823888CRT-042a Project number 103823888-311

Robroy Industries 1100 US Highway 271 South Gilmer, TX 75644

Subject: Follow-up test results on your steel conduits

Dear Ms. Tabitha Stricklin,

Intertek is pleased to provide this letter report covering the quarterly follow-up testing on your steel PVC coated galvanized rigid steel (GRC) conduit: Perma-Cote threaded and non-threaded. The samples were received at Intertek on May 21 2024, for Quarter 2, 2024 follow-up testing and were production samples in undamaged condition.

As part of Intertek's ETL Verified Program for PVC Coated Conduits (PVC-001), the conduits were conditioned during 200 hours as per the method defined in ASTM D 870-15(2020) (Standard Practice for Testing Water Resistance of Coatings Using Water Immersion). It is an alternative practice to ASTM D 2247 (and vice-versa).

Before and after the conditioning period, two (2) standard test methods are used to evaluate the adhesion of both the internal and external coatings.

For the <u>internal coating</u>, we use the standard ASTM D 3359-17: Standard Test Methods for Measuring Adhesion by Tape Test, Test Method B.

For the <u>external coating</u>, we use the section 3.8 of NEMA RN 1-2018: Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit.

The immersion was performed at Intertek, located in Cortland, NY from 09-July-2024 through 17-July-2024 to the Intertek High Temperature H2O PVC Coating Adhesion Test Procedure for 200 hours in water at a temperature of 95  $^{\circ}$ C  $\pm$  5  $^{\circ}$ C. The test results are compliant with the applicable requirements of the test specification and the test results are enclosed to this letter report.

We have appreciated this opportunity to be of service to you. If there are any questions regarding this letter or if you require any other service offered by Intertek, please do not hesitate to contact us.

Sincerely,

Antoine Pelletier

**Project Engineer** 

Global Cabling Products Testing

David Ayers Technician

Global Cabling Products Testing

(LISTED)



















Test Start Date: 7/1/2024 Project #: G103823888 Quarter 2, 2024

**Test End Date:** 7/19/2024 Specification: Intertek High Temp H2O PVC Coating Adhesion Test

Procedure for 200 hours in H20 at a temperature of 95 °C ± 5 °C per ASTM D Test: Adhesion of PVC Coating

Client: Perma-Cote TX

870-15(2020)						
Test Sample	Internal coating *		External coating **			
	Un-aged	Aged	Un-aged	Aged		
Perma-Cote Color Green Un-Threaded						
Sample 1	10	10	10	10		
Sample 2	10	10	9	10		
Sample 3	10	10	10	10		
Average	10	10	9.67	10		
Perma-Cote Color Green Threaded						
Sample 1	10	8	10	10		
Sample 2	10	10	10	10		
Sample 3	10	8	10	10		
Average	10	8.67	10	10		
	Equipment Used		Model #	Control #	Calibration Due Date	
	Hioki Voltage/ Temperature Unit		LR8510	1080	10/17/2024	
	Omega Humidity Temperature Meter		HH314A	T1392	04/19/25	
Test Technician:	Craig L. Williams					
Date:	07/19/2024					
Notes:	Compliant					

<sup>\*</sup> The internal coating adhesion is tested as per ASTM D 3359-17, Test Method B and is rated as in accordance with the following table.

<sup>\*\*</sup> The external coating adhesion is tested as per NEMA RN 1-2018, section 3.8 and is rated as in accordance with the following table.

Rating	Internal Coating Rating	External Coating Rating		
0	or worse	Poor		
2	Worse than but no better than	Poor – Spotty		
4	Worse than but no better than	Spotty – Poor		
6	Worse than but no better than	Spotty		
8	Worse than but no better than	Good – Spotty		
10	No worse than	Good		