



Document Title:  
**Duct Sealing Compound**

Document Type: <b>Specification</b>	Engineering Type <b>Material Specification</b>	Document No.: <b>4350.190</b>
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Department  
**Distribution**

Version:  
**02**

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**Shared document with: Transmission & Distribution**

*\*Select the Departments impacted by the document*

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**Related/Referenced Documents**

N/A

**Version History**

Version	Date	Revision Comments
1	Feb. 08, 2022	Initial Release.
2	Dec. 12, 2023	General format modifications. Document changed as shared between T&D for item 003-02935.



## Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
003-02935	48058	2	12/12/2023



## 1. Introduction

This is a general specification that covers the minimum requirements for duct sealing compound to be used in the distribution and transmission system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general electrical and mechanical characteristics of the equipment/material.

## 2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this equipment/material to LUMA on previous orders will not have to furnish samples at bid opening. The equipment/material will be received at the LUMA's general warehouse (O11) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

## 3. Literature

Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. Failure to submit documents on time will cause bidder disqualification. Evidence of LUMA Energy's approval of the equipment/material shall be supplied by the vendor if requested by LUMA Energy.

## 4. Markings

- 4.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 4.2. Packaging labels and tags shall be waterproof.

## 5. Compatible with

- 5.1. For compatible supplier/manufacturer and model see Table 1. These models are examples of the equipment/material described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

## 6. Packaging

All equipment/material shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

## **7. Number Per Package (Logistics)**

- 7.1. As requested by LUMA Energy.
- 7.2. Standard package: One (1) 5 lbs. (2.27 kg) package contains five (5) individually wrapped slugs of one (1) lb. (0.45 kg) each.
- 7.3. One carton of 50 lbs. (22.68 kg) contains ten (10) 5 lbs. (2.27 kg) packages.

## **8. Acceptance Criteria**

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
  - a. UL Classified R11374
  - b. ASTM D149-64: Standard test for dielectric strength of materials.

## **9. Description**

- 9.1. Duct sealing compound is a permanently soft, non-toxic compound based in a non-drying synthetic polymers and oils which will adhere to most clean dry surfaces and will not adversely affect other plastic materials or corrode metals.
- 9.2. This compound is an easy to handle, dough like material used to seal and protect gaps, holes, conduits opening, and electrical boxes.
- 9.3. Must have a dielectric strength above 100 volts per mil as per ASTM D149-64.
- 9.4. Must be chemical resistance with excellent resistance to water, alcohol, mild acids, and bases.
- 9.5. The compound must be non-corrosive to metals and compatible with other plastic materials.
- 9.6. Must tolerate temperatures between -30°F (-34°C) to 175°F (79°C).
- 9.7. Must be UV resistance and rated for outdoor use.
- 9.8. The compound must not have adverse effect to human eyes or skin as listed CFR, Title 16.

## **10. Inspection**

The acceptance of any equipment/material shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such equipment/material were found later to be defective.

## **11. Proposal Information**

- 11.1. Submitted proposals must include:
  - a. Technical information
  - b. Table of Compliance completed by the bidder with reference (see Appendix).



## 12. Table 1: Warehouse and Asset Suite Identification Number

Warehouse Catalog #	Asset Suite #	Compatible Supplier/Manufacturer & Model
* 003-02935	48058	ABB/Thomas and Betts (Blackburn Duct Seal DX-5) Ideal Industries, Inc. (31-605)

\* Item 003-02935 is also used in the 38kV transmission system.

— End of Specification —



## Appendix

## Appendix 1: Duct Sealing Compound

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Specification	The Proponent complies with the corresponding specification document 4350.190.		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document (ASTM, UL).		
3	Type	Duct Sealing Compound		
4	Material	For outdoor use.		
		Non-corrosive		
5	Product Requirement	Dielectric strength above 100 volts per mil.		
		Chemical, water, alcohol, mild acids, bases, and UV rays resistant.		
		Compatible with other plastic materials.		
		Tolerate temperatures between -30°F to 175°F.		
		Human eyes or skin safe.		












# 4350.190 Duct Sealing Compound (12-12-2023)


Final Audit Report

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