



Document Title:  
**Self-Fusing Silicone Rubber Electrical Tape**

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**Related/Referenced Documents**

N/A

**Version History**

Version	Date	Revision
01	July 21, 2025	Initial Release (Ver. 01)
02	August 11, 2025	Table of compliance update and changed Document Number (Legacy Number: 4350.361) to new Engineering Records nomenclature number 4300.50.361.

<b>Warehouse Catalog #</b>	<b>Asset Suite #</b>	<b>Version</b>	<b>Date</b>
038-75109	75109	2	August 11, 2025



## 1. Introduction

This is a general specification that covers the minimum requirements for Self-Fusing Silicone Rubber Electrical Tape to be used in the distribution 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 in previous orders will not have to furnish samples at bid opening. The equipment/material will be received at LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

## 3. Literature

- 3.1. Descriptive and technical literature must be supplied by the vendor at the time of bidding. This literature must include, but is not limited to, details of material, drawings, documented testing, and instructions for use and installation. **The literature must be an official document from and certified by the manufacturer.** Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

## 4. Compatible with

For compatible manufacturers and models, 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.

## **5. Markings**

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. Individual package(s) shall be clearly marked with the manufacturer's name and item information (part number, serial number, quantity, etc.). Packaging labels and tags shall be waterproof.

## **6. Packaging**

- 6.1. 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.
- 6.2. A list of all parts included in the container and/or package must be provided at the time of delivery so that the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

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

The package contains 24 rolls/case, as outlined in Table 1, or as otherwise specified by LUMA.

## **8. Acceptance Criteria**

- 8.1. Test required: certified by qualified external laboratories.
- 8.2. The product shall be manufactured in accordance with the latest issue below (section 8). When conflicts occur between the purchaser's specifications and the latest issue below, the purchaser's specifications shall prevail.
- 8.3. Latest applicable codes, standards, and other regulations:
  - a. RoHS 2011/65/EU Compliant
  - b. UL Listed
  - c. ASTM D1000-76
  - d. ASTM-D150-68
- 8.4. If any other standard different from the ones indicated in this document is used, the supplier must provide information showing compatibility with the required ones.

## 9. Description

- 9.1. This high-performance, **Silicone** rubber splicing tape is designed for electrical insulation and splicing applications. It excels in splicing utility power cables, providing reliable insulation and moisture resistance. With its ability to withstand high temperatures and its excellent track and arc resistance, this tape ensures secure and durable splices in demanding electrical environments. Its flexibility and conformability make it easy to apply around irregular shapes, ensuring a tight and effective seal for utility power cable splicing.
- 9.2. Here are the detailed technical specifications for the self-fusing silicone rubber electrical tape:
- a. Material: Silicone Rubber
  - b. Color: Sky Blue Grey
  - c. Thickness: 12 mils (0.30 mm)
  - d. Width: Typically, available in 1 inch (25.4 mm)
  - e. Length: Typically, available in 30 feet (9.1 meters)
  - f. Temperature Range: Continuous Operating Temperature: Up to 356°F (180°C)
  - g. Dielectric Strength: 34 kV/mm
  - h. Elongation: 450% (minimum)
  - i. Tensile Strength: 21 N/10mm (minimum)
  - j. Water Absorption: 3% (maximum)
  - k. UV Resistance: Excellent
  - l. Track and Arc Resistance: Excellent
  - m. Adhesion to Steel: Self-fusing, no adhesive required
  - n. Adhesion to Backing: Self-fusing, no adhesive required
  - o. Shelf Life: 5 years when stored under normal conditions (70°F/21°C and 50% relative humidity)
  - p. Insulation should be overwrapped:
    1. Butyl rubber
    2. Oil-base rubber
    3. Ethylene propylene rubber
    4. P.V.C. Low

5. high-density polyethylene cross-linked

## 10. Inspection

- 10.1. Upon inspection of incoming equipment/material, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of the product received. The supplier shall be liable for all costs incurred for a product that is rejected.
- 10.2. 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/materials were found later to be defective.

## 11. Proposal Information

- 11.1. Submitted proposals must include:
- a. Technical information, drawings, and tests.
  - b. Table of Compliance completed by the bidder with reference (see Appendix 1).

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

Item	Warehouse Catalog #	Asset Suite #	Unit	Compatible Manufacturer & Model
Self-Fusing Silicone Rubber Electrical Tape 1" x 30'	038-75109	75109	ea.	3M Scotch 70 Self-Fusing Silicone Rubber Electrical Tape

—End of Specification —

## Appendix

## Appendix 1: Table of Compliance

Line	Description	Pass/Fail	Comments
1	Complied with document 4350.361		
2	Industry Standards: ANSI/ASTM, ULK		
3	Tech. Specification		
4	Type of Material: Silicone Rubber		
5	Dimensions: Width 1", Length 30"		
6	Temperature Range: 356°F		
7	Dielectric Strength: 34 kV/mm		
8	Elongation: 450% (minimum)		
9	Tensile Strength: 21 N/10mm (minimum)		
10	Shelf Life: 5 years		

**NOTE: This table is only a checklist for reference. The compliance must be with the complete document. Filling out the table with "PASS" won't be accepted as compliance without the technical information required to certify it.**













# 4350.361 Self-Fusing Silicone Rubber Electrical Tape rev2

Final Audit Report

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