



Document Title:

Rubber Splicing Tape 130C

Document Type:

Material Specifications

Document No.:

4350.330

Originating Department:

Distribution Standards & Materials

Version:

1

Effective Date:

Sep 14, 2023

Shared documents: T&S T&D T&TM D&TM Luma Engineering

Author

Rosalía Alverio González
Technical Specialist 3, Distribution Standards & Materials

Signature and Date

Sep 14, 2023

Reviewer

Rafael Torres Martinez PE
Supervisor, Distribution Standards & Materials

Signature and Date

Sep 14, 2023

Approver

Ricardo Castro Gómez PE
Manager, Distribution Standards & Materials

Signature and Date

Sep 14, 2023

Version History

Date	Revision Comments
September 13, 2023	Initial Release, converted from PREPA to LUMA format.

Warehouse Catalog	Item Version	Date
038-01230	5	9/13/2023



Document No.: 4350.330
Item No.: 038-01230
Asset Suite: 55181
Originating Department: Distribution Engineering



Rubber Splicing Tape 130C

1. Introduction

This is a general specification that rubber splicing tape 130 C to be use on the distribution system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement will provide information on site specific conditions, quantity, and other requirements. This document includes the general characteristics of the 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 (011) 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 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. For products described in this specification as requiring qualification, awards will be made only for such products that, prior to the time for opening of bids, had been tested and/or approved by LUMA. Evidence of PREPA's and/or LUMA Energy's approval of the equipment or material shall be supplied by 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. 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.
 - a. 3M Scotch



Document No.: 4350.330

Item No.: 038-01230

Asset Suite: 55181

Originating Department: Distribution Engineering

Rubber Splicing Tape 130C

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. Standard package: Ten (10) rolls per box (individually package) or as requested by LUMA Energy.
- 7.2. Each roll of tape must come enclosed in a suitable moisture proof, non-corrosive reusable package

8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
 - a. Tested to ASTM D4388 Type III.

9. Description

- 9.1. High Voltage electrical insulating linerless rubber tape.
- 9.2. Self-fusing ethylene propylene rubber insulating compound cut to $\frac{3}{4}$ in. width x 30 ft. long and tightly wound in rolls with a plastic separator between layers.
- 9.3. The separator or liner shall be a plastic sheet showing no undue tendency to stick to the rubber or to user body.
- 9.4. Central core shall be 1 in. inside diameter.
- 9.5. For the following minimum values:
 - a. Dielectric Strength Minimum: 700V/Mil (27.6 kV/MM)
 - b. Tensile Strength Minimum: 250 psi.
 - c. Thermal Conductivity Nominal: 0.3 W/m-k.
 - d. Backing: Ethylene Propylene Diene Monomer (EPDM)
 - e. Operating Temperature Rating: 197 °F
 - f. Emergency Overload Rating: 266 °F



Document No.: 4350.330

Item No.: 038-01230

Asset Suite: 55181

Originating Department: Distribution Engineering

Rubber Splicing Tape 130C

- g. Thickness: 30 +/- 3.0 mils
 - h. Elongation Minimum: 700 %
 - i. Volume Resistivity Minimum: After 96 hrs. @ 23°C / 50% RH: 10^{14} ohm.cm and After 96 hrs. @ 23°C / 96% RH: 10^{13} ohm.cm.
 - j. Permittivity in Air Maximum: After 24 hrs. @ 23°C-70°C: 4.0.
 - k. Dissipation Factor in Air Maximum: After 24 hrs. @ 23°C-70°F: 5%.
 - l. Color: Black
- 9.6. Moisture sealing, jacketing, bus bar insulating, and end sealing high-voltage cables.
- 9.7. Compatible with common solid dielectric cable insulations.
- 9.8. Operating Temperature Rating 194°F (90°C), Emergency Overload Rating 266°F (130°C).

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/materials 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 1).

— End of Specification —



Document No.: 4350.330

Item No.: 038-01230

Asset Suite: 55181

Originating Department: Distribution Engineering

Rubber Splicing Tape 130C

Appendix



Document No.: 4350.330
Item No.: 038-01230
Asset Suite: 55181
Originating Department: Distribution Engineering

Rubber Splicing Tape 130C

Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P / F)	Comments
1	Specification	The Proponent complies with the corresponding specification document. (4350.330)		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document. (ASTM D4388 Type III)		
3	Description	High Voltage electrical		
		Moisture sealing, jacketing, bus bar insulating, and end sealing high-voltage cables.		
		Compatible with common solid dielectric cable insulations.		
		Operating Temperature Rating 194°F (90°C), Emergency Overload Rating 266°F (130°C).		
4	Minimum Values	Dielectric Strength Minimum: 700V/Mil (27.6 kV/MM)		
		Tensile Strength Minimum: 250 psi.		
		Thermal Conductivity Nominal: 0.3 W/m-k.		
		Backing: Ethylene Propylene Diene Monomer (EPDM)		
		Operating Temperature Rating: 197 °F		
		Emergency Overload Rating: 266 °F		
		Thickness: 30 +/- 3.0 mils		
		Elongation Minimum: 700 %		
		Volume Resistivity Minimum: After 96 hrs. @ 23°C / 50% RH: 10 ¹⁴ ohm.cm and After 96 hrs. @ 23°C / 96% RH: 10 ¹³ ohm.cm.		
		Permittivity in Air Maximum: After 24 hrs. @ 23°C-70°C: 4.0.		
Dissipation Factor in Air Maximum: After 24 hrs. @ 23°C-70°F: 5%.				
5	Dimensions	Self-fusing ethylene propylene rubber insulating compound cut to ¾ in. width x 30 ft. long and tightly wound in rolls with a plastic separator between layers.		
		Central core shall be 1 in. inside diameter.		
6	Color	Black		











4350.330 Linerless Rubber Splicing Tape 130C (9-13-2023)

Final Audit Report

2023-09-14

Created:	2023-09-14
By:	Rosalia Alverio (rosalia.alverio@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAqykf7Uv5NqIDmb3tKmHGbH-KkJuqXT9C

"4350.330 Linerless Rubber Splicing Tape 130C (9-13-2023)" History

-  Document created by Rosalia Alverio (rosalia.alverio@lumapr.com)
2023-09-14 - 6:11:53 PM GMT
-  Document e-signed by Rosalia Alverio (rosalia.alverio@lumapr.com)
Signature Date: 2023-09-14 - 6:14:36 PM GMT - Time Source: server
-  Document emailed to Rafael Torres-Martinez (rafael.torresm@lumapr.com) for signature
2023-09-14 - 6:14:37 PM GMT
-  Email viewed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
2023-09-14 - 6:17:51 PM GMT
-  Document e-signed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
Signature Date: 2023-09-14 - 6:18:04 PM GMT - Time Source: server
-  Document emailed to ricardo.castro@lumapr.com for signature
2023-09-14 - 6:18:06 PM GMT
-  Email viewed by ricardo.castro@lumapr.com
2023-09-14 - 6:28:40 PM GMT
-  Signer ricardo.castro@lumapr.com entered name at signing as Ricardo Castro Gómez
2023-09-14 - 6:40:16 PM GMT
-  Document e-signed by Ricardo Castro Gómez (ricardo.castro@lumapr.com)
Signature Date: 2023-09-14 - 6:40:18 PM GMT - Time Source: server
-  Agreement completed.
2023-09-14 - 6:40:18 PM GMT