

Tape, Vinyl, Electrical



1. Scope

This standard covers the requirements for standard- and heavy-duty, pressure-sensitive, vinyl, electrical tape.

This standard applies to the following Seattle City Light stock numbers:

Stock Number	Description
736655	Standard-duty, 3/4 in x 66 ft roll
736656	Standard-duty, 1-1/2 in x 44 ft roll
736644	Heavy-duty, 1 in x 36 yd roll
736650	Heavy-duty, 2 in x 36 yd roll

2. Application

Standard- and heavy-duty tapes are intended for the following applications:

- Primary electrical insulation for wire and cable splices rated up to 600 volts
- Primary electrical insulation for 600-volt bus applications, and protective jacketing for low and high-voltage bus
- Protective jacketing for high voltage cable splices and repairs
- Harnessing of wires and cables
- Suitable for both indoor and outdoor applications
- Suitable for both above and below-grade applications

Standards Coordinator
John Shipek

Standards Supervisor
John Shipek

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Standard-duty tape has a lower installation and operating temperature rating than heavy-duty tape. Heavy-duty tape is more suitable for wrapping pipe than standard-duty tape.

Tape is applied in half-lapped layers with sufficient tension to produce a uniform wind (for most applications this tension will reduce the tape's width to approximately 5/8 of its original width). Connectors having irregular surfaces should be first padded with an appropriate product.

3. Industry Standards

Tape shall meet the requirements of the following industry standards:

ASTM D1000-10 - Standard Test Methods for Pressure-Sensitive Adhesive-Coated Tapes Used for Electrical and Electronic Applications

UL 510 - Underwriters Laboratories, Polyvinyl Chloride Polyethylene and Rubber Insulating Tape, 01-Feb-2005

4. Properties (nominal)

4.1 General

ASTM D1000 Class	2 (elastomeric)
Tape backing material	polyvinyl chloride (PVC) and/or its polymers
Adhesive	rubber-based, pressure-sensitive
Color	black
Breaking strength, per ASTM D1000 @ 22° C (72° F),	20 lbs/in (of width)
Voltage rating, per UL 510	600 V
Core diameter	1-1/2 in
Shelf life (inside storage)	5 years from the date of manufacture

Tape shall have excellent resistance to abrasion, moisture, alkaloids, acids, corrosion and varying weather conditions.

Tape shall be Underwriters Laboratories (UL) listed and marked as "Flame-Retardant, Cold Resistant."

Tape shall be shall be RoHS (European Union Directive 2002/95/EC for Restriction of Hazardous Substance) compliant.

4.2 Standard-duty

Temperature range	
Application	-18° C through 38° C (0° F through 100° F)
Operating	-18° C through 105° C (0° F through 221° F)
Material thickness, mil	8.5

4.3 Heavy-duty

Temperature range	
Application	-10° C through 38° C (15° F through 100° F)
Operating	-10° C through 80° C (15° F through 176° F)
Material thickness, mil	10

5. Testing

Test data that confirms the properties cited in the manufacturer's data sheet and this material standard shall be provided upon request.

6. Packaging

Each roll of tape shall be individually packaged in cellophane, plastic, or metal containers and legibly marked with the following information:

- Manufacturer's name
- Manufacturer's catalog number
- Product description

Number of rolls of tape per case shall be according to Section 8.

Each shipping container shall be marked with Seattle City Light's Purchase Order Number.

7. Issuance

RL

8. Approved Manufacturers

Stock Number	736655
Description:	Standard-duty, ¾ in x 66 ft roll
Manufacturer:	3M
Product:	37
ID:	80-6104-5614-9
UPC:	0-00-54007-09894-2
Case Quantity:	100
Manufacturer:	Plymouth
Product:	Premium 85 CW
Catalog:	4243
Case Quantity:	100

Stock Number	736656
Description:	Standard-duty, 1-1/2 in x 44 ft roll
Manufacturer:	3M
Product:	15
ID:	80-6109-8097-3
UPC:	0-00-54007-43110-7
Case Quantity:	90 rolls
Manufacturer:	Plymouth
Product:	Premium 85 CW
Catalog:	4252 (66 ft roll)
Case Quantity:	100
Stock Number	736644
Description:	Heavy-duty, 1 in x 36 yd roll
Manufacturer:	3M
Product:	22
ID:	80-0120-1705-1
UPC:	00-054007-10042-3
Case Quantity:	48 rolls
Manufacturer:	Plymouth
Product:	HD 2
Catalog:	<i>pending</i>
Case Quantity:	<i>pending</i>

Stock Number	736650
Description:	Heavy-duty, 2 in x 36 yd roll
Manufacturer:	3M
Product:	22
ID:	80-0120-1707-7
UPC:	00-054007-10067-6
Case Quantity:	12 rolls
Manufacturer:	Plymouth
Product:	HD 2
Catalog:	8724
Case Quantity:	<i>pending</i>

9. References

3M Specification-Grade Vinyl Electrical Tape 15, Data Sheet, March 2011, 78-8141-4627-6 A

3M Specification-Grade Vinyl Electrical Tape 37, Data Sheet, April 2011, 78-8141-4721-7 A

Scotch Heavy Duty Vinyl Electrical Tape 22, Data Sheet, July 2011, 78-8124-4842-7 C

SCL 7366.0 (canceled) Tape, Electrical, Pressure-Sensitive

SCL 7366.5 (canceled) Tape, Electrical, Pressure-Sensitive, Low Temperature Type

Shipek, John; Standards engineer and originator of 7366.55.

Plymouth Electrical Tapes Product Catalog, PRE-01/USA

www.3m.com/electrical

www.plymouthrubber.com