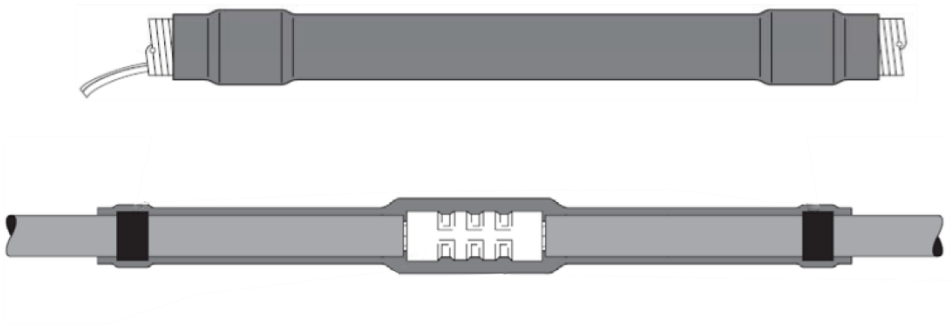
Insulating Sleeves, Cold Shrink, Secondary Connector



1. Scope

This standard covers the requirements for secondary connector, cold shrink, insulating sleeves.

This standard applies to Seattle City Light (SCL) Stock No. 014307.

2. Application

Cold shrink, insulating sleeves are open-ended tubular rubber sleeves with sealing mastic on each end that are factory expanded and assembled onto a removable core. The core is removed by pulling from one end after the QI insulator has been positioned over an inline connector, allowing the ends of the tube to shrink and form a water-resistant seal.

Cold shrink, insulating sleeves are used for:

- Primary electrical insulation for solid dielectric (rubber and plastic) insulated wire and cable splicing rated to 1000 volts, direct bury or submersible
- Insulation of secondary splices, copper or aluminum conductors
- Dig-in repairs
- Sheath repairs
- Insulation of inline conductor transition connectors and set screw or oversized connectors

In aerial applications where intense UV radiation will be common and visual inspection is not possible, it is recommended to overwrap the tubing with vinyl electrical tape or self-fusing silicone rubber electrical tape.

Stock No. 014307 does not include a connector.

3. Requirements

Cold shrink, insulating sleeves shall meet the requirements as described in tables 3a and 3b.

Table 3a. Cold Shrink, Insulating Sleeve Dimensional Requirements

Attribute	Requirement
Typical size range (AWG/kcmil)	
Aluminum conductor	#2-500
Copper conductor	#2-750
Cable insulation outside diameter range (in)	0.40-1.45
Maximum connector outside diameter (in)	1.45
Maximum connector length (in)	4.5
Color	Black

Table 3b. Cold Shrink, Insulating Sleeve Physical Requirements

Property (Test Method)	Nominal Value
300% modulus (ASTM D 412)	480 psi
Ultimate tensile (ASTM D 412)	1400 psi
Ultimate elongation (ASTM D 412)	750%
Moisture absorption	Weight gain 1.8%
Dielectric strength (ASTM D 149	365 V/mil
7 days in H20, 90 degrees C	282 V/mil

Note: Properties measured at room temperature 73 degrees F unless otherwise stated.

4. Marking

Cold shrink, insulating sleeves shall be permanently marked with the manufacturer name.

5. Packaging

Each standard package shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- SCL stock number
- Quantity contained

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Product description
- SCL purchase order number
- SCL stock number

6. Issuance

Stock Unit: EA

7. Approved Manufacturers

Manufacturer	Catalog No.
3M	QI-10/37-270

8. Sources

3M Cold Shrink Quick Insulator QI Series Data Sheet; July 2015, 78-8127-8709-7 Rev G

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