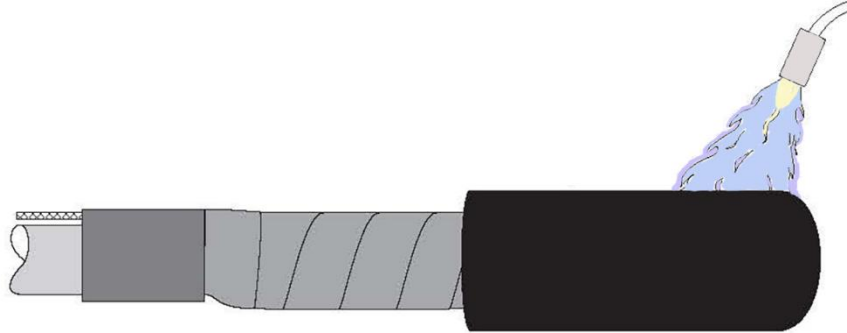


Live End Seals, Heat Shrink, 110 kV BIL



1. Scope

This standard covers the requirements for heat shrink, live end seals.

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

Stock No.	Typical City Light Cable Application
686611	1/C, #1-3/0 AWG, TRXLPE
686612	1/C, 350-500 kcmil, TRXLPE
686613	1/C, 750 kcmil, TRXLPE
686616	3/C, #4-3/0 AWG, PILC

2. Application

Heat shrink, live end seals are used with 15 kV rated Network cable. See Section 1.

Heat shrink, live end seals insulate and seal the ends of 1/C, polymeric, and paper-insulated, lead-covered (PILC) cables and 3/C PILC cables.

Polymeric cable insulation includes tree retardant crosslinked polyethylene (TRXLPE), ethylene propylene rubber (EPR), ethylene alkene copolymer (EAM).

Typical applications include:

- Live ending of spare cables for future use
- Isolating a failed cable length
- Sectionalizing a cable circuit during system maintenance and repair, expansion, or testing

3. Requirements

Heat shrink, live end seals shall be appropriate for installation on 15 kV rated primary cable.

Heat shrink, live end seals shall meet the requirements of Table 3.

Table 3. Heat Shrink, Live End Seal Requirements

	Stock No.			
	686611	686612	686613	686616
Conductor size, AWG/kcmil	#4-4/0	250-350	500-750	#4-4/0
Cable insulation system	Polymeric or PILC	Polymeric or PILC	Polymeric or PILC	PILC only
Basic insulation level (BIL), kV	110	110	110	110
Insulation diameter, min-max (in)				
PILC	0.60-0.90	0.85-1.10	1.05-1.30	0.60-1.00
Poly	0.65-1.05	0.90-1.30	1.10-1.60	-
Kit installed length (in)	12	12	12	27
Connector supplied with kit	None	None	None	None

4. Marking

Heat shrink, live end seals shall be permanently marked with the manufacturer's name.

5. Packaging

Heat shrink, live end seals shall be packaged one kit per box.

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

- Manufacturer's identification
- Product description
- Seattle City Light stock number

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

- Manufacturer's identification
- Product description
- Seattle City Light purchase order number

6. Issuance

Stock Unit: EA

7. Approved Manufacturers

Stock No.	TE Connectivity Catalog No.
686611	HVES-1521D
686612	HVES-1522D
686613	HVES-1523D
686616	HVES-3-1591

8. Sources

Shipek, John; SCL Standards Supervisor, originator, and subject matter expert for 6873.57 (john.shipek@seattle.gov)

TE Connectivity, Energy Division; Product Sheet E604, Live End Seals (HVES) for 1/C PILC and Poly or 3/C PILC Cable (15-25 kV), 10/2014

Tyco Electronics, Energy Division; Product Installation Instructions, HVES-1520D 15 kV Class 1/C Live End Seal for Extruded Dielectric (Poly/EPR) or PILC/VCLC Power Cable, PII-53286, Rev AF, PCN 377750-000, December 18, 2002