

**INSULATOR, MEDIUM-VOLTAGE, PORCELAIN, PIN-TYPE**



**1. Scope**

This standard covers the requirements for porcelain medium-voltage pin-type insulators.

This standard applies to Seattle City Light Stock Number 690005.

**2. Application**

Porcelain medium-voltage pin-type insulators are installed on wood cross arms to support lines rated up to 2.6 kV, phase-to-ground.

**3. Industry Standards**

Porcelain pin-type insulators shall meet the requirements of the following national standard:



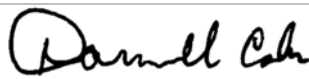
**ANSI C29.5-1984** - American National Standard for Wet-Process Porcelain Insulators Low- and Medium-Voltage Types

**4. Requirements**

Porcelain pin-type insulators shall meet the following requirements:

ANSI C29.5 Class	55-2 (Radio Freed)
60 Hz dry flashover, kV rms, nominal	45

60 Hz wet flashover, kV rms, nominal	25
Positive critical impulse flashover, kV crest, nominal	70
Leakage distance, in, nominal	5
Strike/dry arc distance, in, nominal	3-3/8
Pin height, in, minimum	4
Pin diameter, in, nominal	1
Cantilever strength, ultimate, lbs	2500
Porcelain color	gray, according to ANSI C29.5, Section 5.2
Semi-conductive glaze	required
Top and side wire grooves	according to ANSI C29.5, Figure 2
Neck type	"C"

<i>standards coordinator</i>	<i>standards supervisor</i>	<i>unit director</i>
 Aida Diop	 John Shipek	 Darnell Cola

**Material Standard**

Insulator, Medium-Voltage, Porcelain, Pin-Type

**5. Testing**

Test data that establishes compliance with the requirements of ANSI C29.5, Section 8 shall be provided upon request.

**6. Marking**

Porcelain, pin-type insulators shall be clearly and indelibly marked in accordance with ANSI C29.5-Section 7.

Marking shall include but not be limited to:

- Manufacturer's name or symbol
- Year of manufacture
- Product Identification Number

**7. Packaging**

Porcelain pin-type insulators shall be packaged in a way that prevents damage during shipping, handling, and long-term outside storage.

Crates shall be secured to pallets for handling by forklifts. Pallets shall not exceed 4 feet in height or 1,000 pounds in weight.

Individual packages shall be legibly marked with:

- Manufacturer's name
- Manufacturer's catalog number
- Seattle City Light's Stock Number

Shipping containers shall be legibly marked with:

- Seattle City Light's Purchase Order Number
- Seattle City Light's Stock Number

**8. Issuance**

**Stock Unit:** EA

**9. Approved Manufacturers**

Manufacturers and Catalog Numbers				
Stock No	Gamma Insulators (formerly Lapp)	PPC (Seves)	Santa Terezinha (CST)	Victor Insulators, Inc.
690005	6188R-70	253-S	1112	8R

**10. References**

**Diop, Aida;** SCL Standards Engineer, subject matter expert and originator of 6900.10 (aida.diop@seattle.gov)

**Shipek, John;** SCL Standards Engineer, subject matter expert for 6900.10 (john.shipek@seattle.gov)