

INSULATOR, PORCELAIN, GUY STRAIN



1. Scope

This standard covers the requirements for porcelain guy strain insulators.

The Seattle City Light Stock Numbers for this insulator type are 690104 and 690106.

2. Application

Porcelain guy strain insulators are installed in down guys and span guys to create an electric break. Their use is governed by NESC, Section 21, Rule 215.

Porcelain guy strain insulators provide a safer working space in the area of high voltage conductors and minimize corrosion of anchors and anchor rods.

3. Industry Standards



Porcelain guy strain insulators shall meet the requirements of the following national standard:

ANSI C29.4-1989 - American National Standard for Wet-Process Porcelain Insulators Strain Type

4. Requirements

Porcelain guy strain insulators shall meet the following requirements:

Stock No	690104	690106
ANSI C29.4 Class	54-2	54-3
60 Hz dry flashover, kV rms, nominal	30	35
60 Hz wet flashover, kV rms, nominal	15	18
Leakage distance, in, nominal	1-7/8	2-1/4
Length, in, nominal	4-1/4	5-1/2
Rated tensile strength, lbs, nominal	12,000	20,000
Porcelain color	gray, according to ANSI C29.4, Section 5	gray, according to ANSI C29.4, Section 5

standards coordinator	standards supervisor	unit director
 Aida Diop	 John Shippek	 Darnell Cola

Material Standard

Insulator, Porcelain, Guy Strain

standard number: **6901.10**

superseding: December 22, 2005

effective date: July 13, 2011

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5. Testing

Test data that establishes compliance with the requirements of ANSI C29.4, Section 8 shall be provided upon request.

6. Marking

Porcelain guy strain insulators shall be clearly and indelibly marked in accordance with ANSI C29.4, Section 7.

Marking shall include but not be limited to:

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

7. Packaging

Porcelain guy strain 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 Insulators (Seves)	Santana Terezinha (CST)	Victor Insulators, Inc.
690104	8504-70	504	1197	VI 4604
690106	8506-70	506	1173	VI 4606

10. References

Diop, Aida; SCL Standards Engineer, subject matter expert and originator of 6901.10 (aida.diop@seattle.gov)

IEEE C2-2007; National Electrical Safety Code

Shipek, John; SCL Standards Engineer, subject matter expert for 6901.10 (john.shipek@seattle.gov)