

# SILICONE INSULATORS

FOR OVERHEAD LINE APPLICATIONS

TE Connectivity's (TE) line of silicone insulators is designed to protect your overhead distribution lines while helping to reduce the total cost of ownership.

The lightweight material and large range of end-fittings allow for easy installation in multiple applications.

### **MV Silicone Insulators**

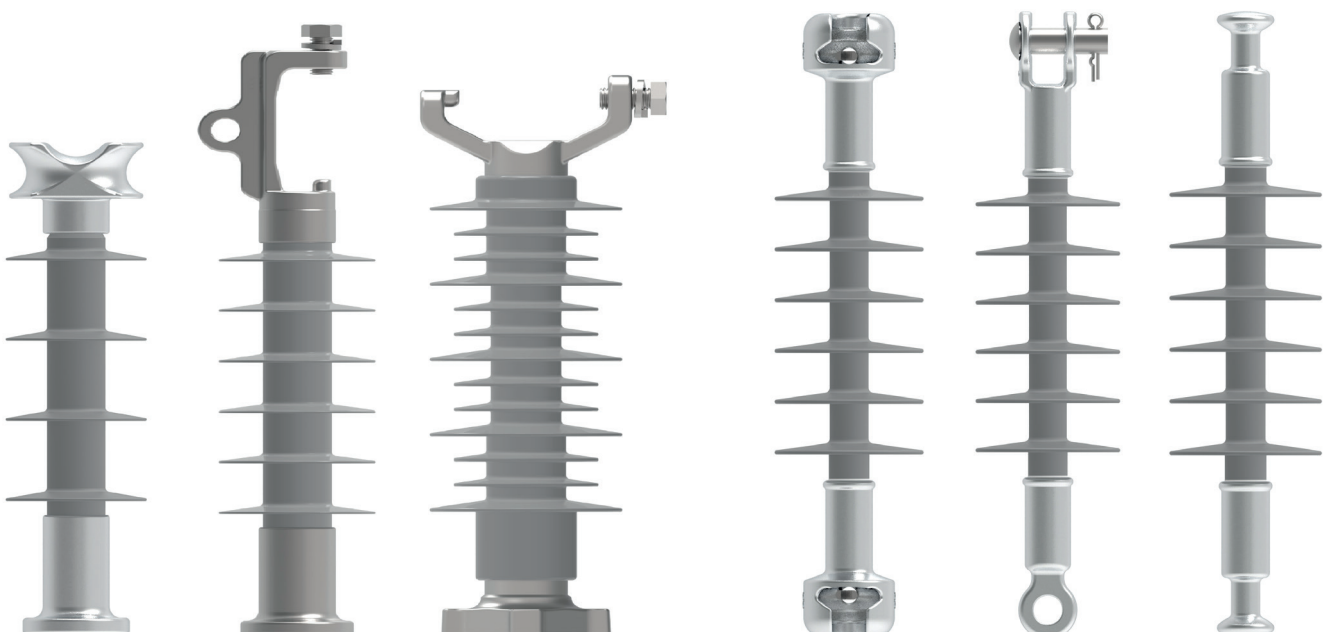
The high tensile strength of Fiber Reinforced Plastic (FRP) has been combined with our HV shed profile to produce this rugged, lightweight tension insulator for overhead line applications.

The glass fiber core provides high mechanical strength with tensile values of greater than 70 kN/15,000 lbs and cantilever loads up to 15 kN. The silicone insulator profile is backed by 40 years of TE's Raychem, Bowthorpe EMP and Axicom medium and high voltage product design. Silicone is a hydrophobic material with a performance of tracking/erosion resistance with UV stability. Silicone also gives a good balance of technical performance in a wide range of climatic and pollution conditions.

The construction consists of TE's compact creepage design insulator profile which has the same shed diameter in order to maximize flashover performance over a minimum insulator length. There is also a secondary moisture barrier placed around the interfacial seal.

### **Benefits and Key Features**

- 70kN / 15,000 lbs Tension rating (SML)
- Specified Cantilever Load (SCL) up to 15kN / 3,372 lbs
- Wide selection of galvanized metal end fittings
- Reliable tensile performance
- Lightweight for easier installation
- Silicone housing has excellent hydrophobic properties
- Shed design to minimize insulator length per kV rating
- Shock and vibration resistant
- Good tracking and erosion resistance performance
- Maintenance free
- Suspension/Tension Insulators qualified to IEC 61466-1 or ANSI C29.13
- Line Post Insulators qualified to IEC 61952 or ANSI C29.18
- Quality design and manufactured to ISO9001

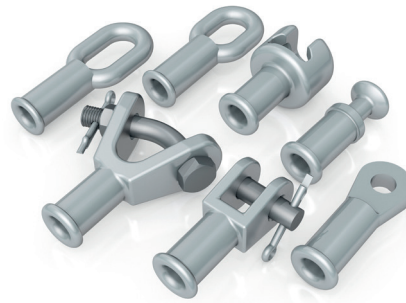


**Electrical Properties Selection**

- Select the operating voltage or the LIWV (BIL)
- Compare the listed creepage to the required minimum creepage
- Find the equivalent or a larger creepage distance for your application
- Confirm the electrical parameters meet the insulation requirements

**Metal End Fitting Selection  
for Suspension Insulators**

- Ball **B**
- Socket **S**
- Eye **E**
- Y Clevis **Y**
- Clevis **C**
- Tongue **T**



**Naming Convention**

**Specifying Silicone Tension / Suspension Insulators**

To specify the correct insulator, it is necessary to define the following characteristics:

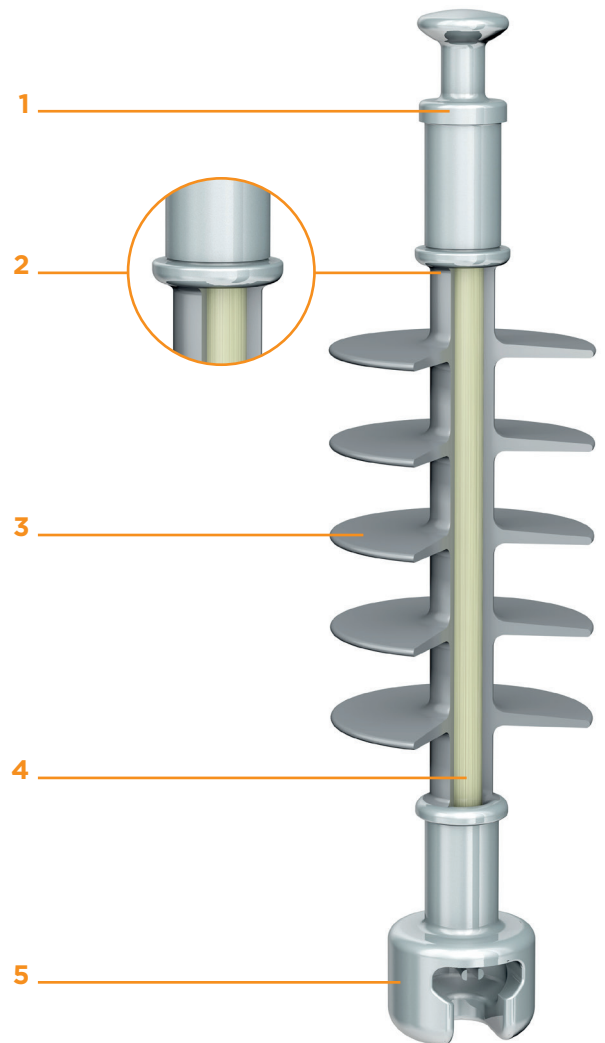
- Specified mechanical load (SML) [kN] [lbs]
- Operating voltage and or LIWV (BIL) [kV]
- Nominal creepage distance [mm] [inches]
- Metal end fittings or couplings

**Designation of Silicone Tension / Suspension Insulators**

In accordance with IEC 61466-1 or ANSI C29.13 composite tension insulators are assigned a reference designation which indicates:

- Insulator type
- Mechanical strength
- Metal end fitting type

1. Ball end fitting
2. Interfacial seal with secondary RTV seal
3. Silicone housing
4. Fibre glass Rod reinforced Pultruded core (FRP)
5. Socket end fitting



### Metal End Fitting Selection for Line Post Insulators

#### Top Fitting

- 1. Neck Tie Top **C**
- 2. Neck Tie Top **F**
- 3. Horizontal Clamp Top **H**
- 4. Vertical Clam Top **V**
- 5. Bolt Circle -1/2 -13 UNC on 3" **BC**

#### Bottom Fitting

- 1. Standard Base-Stud with 3/4-10 UNC Threads **S1**
- 2. Bolt Circle -1/2 -13 UNC on 3" **BC**
- 3. Additional thread sizes available upon request

### Naming Convention

#### Specifying Line Post Insulators

To specify the correct insulator, it is necessary to define the following characteristics:

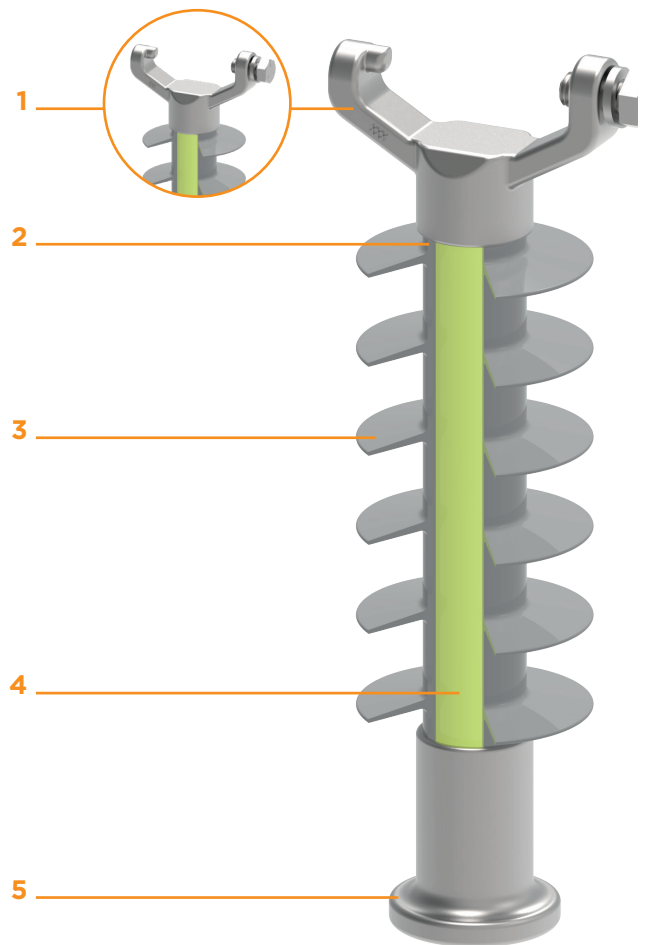
- Specified Cantilever Load (SCL) [kN] [lbs.]
- Operating voltage and LIWV (BIL) [kV]
- Nominal creepage distance [mm] [inches]
- Metal end fittings or couplings

#### Designation of Silicone Line Post Insulators

In accordance with IEC 61952 and ANSI C29.18 composite line post insulators are assigned a reference designation which indicates:

- Insulator type
- Cantilever strength
- Metal end fitting type

- 1. Vertical clamptop
- 2. Interfacial seal with secondary RTV seal
- 3. Silicone housing
- 4. Fibre glass Rod reinforced Pultruded core (FRP)
- 5. Line or base end fitting



**Tension Insulators IEC Naming Convention**

**CS-XX-YY-BIL-ZZZZ-M-XX**

**CS** - Composite Suspension

**XX** - SML rating

**YY** - Top/bottom fitting

**BIL** - BIL (kV)

**ZZZZ** - Creepage distance (mm)

**M** - Manufacturing style

(**M** = Molded in place or **O** = Overmold)

**XX** - Designation for special items such as fitting type, special packaging, extra galvanizing etc

01 - Cast

02 - Forged

XX - Additional codes to be assigned

**Line Post Insulators IEC Naming Convention**

**CLP-XX-XXXX-XXX-XXXX-X-XX**

**CLP** - Composite Line Post

**XX** - SCL rating

**XXXX** - Top/bottom fitting

**XXX** - BIL (kV)

**XXXX** - Creepage distance (mm)

**X** - Manufacturing style

(**M** = Molded in place or **O** = Overmold)

**XX** - Designation for special items such as fitting type, special packaging, extra galvanizing etc.

01 - Cast

02 - Forged

XX - Additional codes to be assigned

**Tension Insulators ANSI Naming Convention**

**TE-XXXX-XX-XX**

**TE** - TE Connectivity

**XXXX** - DS rating per ANSI C29.13

**XX** - End fitting top/bottom

**XX** - Special: fitting type and/or specials like extra galvanizing, special packaging etc

**Last two-digit codes**

01 - Standard with cast fittings  
(except ball fittings)

11 - Forged fittings

XX - Additional codes to be assigned as needed

**Line Post Insulators ANSI Naming Convention**

**TE-XXXX-XXX-XX**

**TE** - TE Connectivity

**XXXX** - ANSI Class

**XXX** - End fitting top/bottom

**XX** - Designation for special items such as fitting type, special packaging, extra galvanizing etc

**Last two-digit codes**

01 - Standard with cast fittings  
(except ball fittings)

11 - Forged fittings

XX - Additional codes to be assigned as needed

TE Connectivity is a \$13 billion global industrial technology leader creating a safer, sustainable, productive, and connected future. Our broad range of connectivity and sensor solutions, proven in the harshest environments, enable advancements in transportation, industrial applications, medical technology, energy, data communications, and the home. With nearly 80,000 employees, including more than 8,000 engineers, working alongside customers in approximately 150 countries, TE ensures that EVERY CONNECTION COUNTS.

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