



INSULIGN® Polymer Insulators

NOMENCLATURE



GENERAL RECOMMENDATIONS

INSULIGN Polymer Insulators are for use in overhead distribution lines using bare or covered conductors. They are particularly suited for use with Spacer Cable and Tree wire as a better electrical alternative to porcelain insulators.

The insulators are made from a proprietary, high-density polyethylene-based compound with a dielectric constant compatible with polyethylene covered conductors.

They are designed to meet the appropriate dimensional, electrical, and mechanical requirements of the ANSI C29.5 and C29.6 insulator standards, even though this standard applies only to Wet-Process Porcelain Insulators. These insulators can be used in any application that calls for porcelain insulators requiring adherence to this ANSI standard.

Two basic Pin Top designs are offered: Tie Top and Vise Top Insulators, both available for application on 1" or 1-3/8" pins depending upon the specific ANSI class or voltage application. PLP also offers a Polymer Spool Insulator, ANSI Class 53.2 for neutral applications.

The Tie Top Insulators are designed to meet the appropriate ANSI C29.5 and C29.6 insulator head dimensional standards for appropriate insulator classes with "C," "F" and "J" necks. Therefore, they are compatible with all PLP Formed Wire and Plastic Ties, and covered or bare tie wire.

The Vise Top Insulators employ a unique clamp style head. While they are also designed to meet certain ANSI standards, the clamp head design is not applicable to ANSI tie top insulator head dimensional standards.

Benefits:

- ANSI compliant tie top head design facilitates the use of factory-formed ties for exceptional fit and performance matching.
- The polymer insulators closely match the dielectric properties of the covered conductor jacket.
- The polyethylene surface, coupled with the multiple skirt design with descending skirt diameters and long leakage distances, provides superior moisture and contamination shedding properties.
- UV Stabilized for long-term service.
- High impact resistance – designed to reduce breakage and vandal/gun shot damage, particularly at cold temperatures.
- The light weight design reduces shipping costs and lineman handling requirements.
- Polyethylene material eliminates abrasion of the conductor at the insulator/conductor interface.
- Polymer Insulators can be used with jacketed jumper wires, eliminating skinning, and providing additional wildlife protection at equipment locations.
- Vise Top Polymer Insulator designs provide a unique clamping mechanism for quick installation for a greater range of conductors.
- The same clamp and head design is used for all Vise Top Polymer Insulators. The skirt design varies by voltage application.
- A Vise Top Stringing Tool is offered to aid jacketed conductor installation and reduce stringing equipment.

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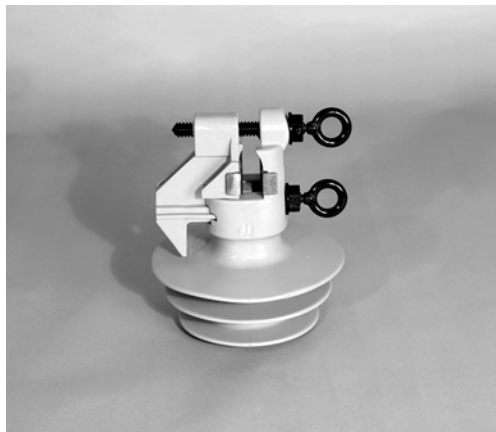


INSULIGN Tie Top Polymer Insulators:

INSULIGN Tie Top Polymer Insulators are designed to match the head, neck and mounting pin requirements of ANSI C29.5, Class 55-3, 55-4, 55-5, 55-6, and 55-7 as well as ANSI C29.6, Class 56-1 pin-type insulator standards. "C" (2 -1/4" nominal), "F" (2-7/8" nominal) and "J" (3-1/2") neck sizes are available.

By using ANSI head and neck dimensional standards, PLP metal or plastic factory formed ties will install easily and provide superior holding and electrical performance on PLP INSULIGN Tie Top Polymer Insulators. Consult PLP for the suitability of other factory formed tie brands with these insulators.

Covered or bare hand tie wire is also suitable for use with INSULIGN Tie Top Polymer Insulators depending on conductor type.



INSULIGN Vise Top Polymer Insulators:

INSULIGN Vise Top Polymer Insulator utilizes a unique plastic clamp mechanism and nylon torque bolts to secure the conductor. Nylon Torque bolts with break away heads are designed to provide a method to insure that proper torque is applied to the mechanism for fast and proper conductor clamping force.



Conductor Inserts:

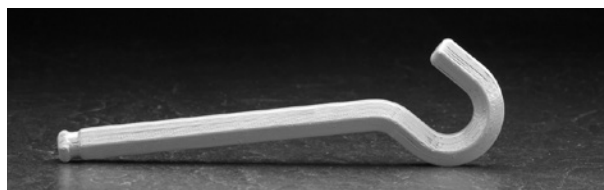
Compatible conductor inserts for either jacketed or bare conductors are available. Nylon inserts are offered for use with jacketed conductors. Bronze inserts are offered for bare copper conductors. Aluminum inserts are offered for bare aluminum conductors. PLP also offers a universal insert which is compatible with all conductors. It is recommended that the utility determine the suitability of PLP INSULIGN Vise Top Polymer Insulators on bare conductor before installation.



Torque Bolts:

Two Torque Bolts are supplied with each vise top insulator. The breakaway torque ring is designed to insure the proper torque, and subsequent holding force, will be applied to the conductor during initial installation. All Vise Top Insulators use the same Torque Bolt.

New Torque Bolts should be used whenever conductors are removed from the Vise Top Insulator or any time the bolts are unscrewed and initial torque is lost. Individual Torque Bolts are available for replacement as needed.



Torque Bolt Hook Tool:

An aluminum hook tool accessory is offered for use with hydraulic or power wrenches for easy installation of Torque Bolts. However, the tool should be operated at low speeds. A standard shotgun stick is also ideal for the installation of the torque bolts.