POWERSIL® PERFORMANCE FOR INSULATOR COATINGS
Environmental stresses and pollution such as in industrial, desert and coastal regions do often lead to an excessive leakage current, pollution-induced flashovers and subsequently to power system outages.

Countermeasure is the frequent washing or greasing of the electrical equipment, leading to periodically occurring additional maintenance costs and downtimes in electricity supply.

These can be avoided by the use of POWERSIL® High Voltage Insulator Coatings (HVIC). WACKER as a long-term expert partner of the Transmission & Distribution industry (T&D) manufactures a variety of specially engineered RTV-1 silicones for this purpose.

WACKER serves the customers through technical centers across the globe, offering wide ranging support for product selection, manufacturing, and end-product specification.

For more information, visit:
www.wacker.com
POWERSIL® HVIC

Silicones in T&D
Thanks to their molecular structure, silicones are the perfect solution for insulating applications in the T&D sector.
For example, silicone composite insulators covered with pollution layers have much lower leakage currents than insulators made of porcelain, glass or EPDM. This prevents pollution flashovers, even if the surface is extremely dirty.

With the POWERSIL® products, WACKER was the first silicone manufacturer to offer its customers a complete range of insulating and electrically conductive silicone rubber grades for medium- and high-voltage applications. Silicone products from WACKER have been used to make generations of composite insulators and other insulating components.

Advantages of POWERSIL® HVIC
POWERSIL® silicone coatings are usually applied to conventional insulating parts made of glass or porcelain that are exposed to dirt and wet conditions, thus to the risk of failing by pollution flashover, providing the following advantages:

Higher operational reliability
Low leakage current measured in microamps is the norm due to the outstanding hydrophobic properties. Pollution flashovers can thus be avoided, even if the surface is very dirty or wet.

Retrofitting of existing installations
Silicone coatings offer a cost-effective option for hydrophobic coating of insulators made of porcelain, glass, or epoxy resin. This saves the costs for periodic cleaning or for a replacement with composite insulators.

Longer service life
Silicone coatings extend the service life of existing installations, thus contributing to effective resource management. Experience has shown that POWERSIL® silicone coatings reach at least 10 years of service life. Some manufacturers of porcelain and glass insulators have recently started to promote the application of silicone coatings in their supply chain to make their products water repellent.
PRODUCT OVERVIEW –
POWERSIL® HVIC GRADES

Three Types to Meet Customer Expectations
All three share the following characteristics:
• Ready-to-use
• Perfect primerless adhesion
• Excellent hydrophobic properties
• Outstanding tracking resistance

What Does an Applicator Need to Get Started?
• Spraying equipment (e.g. airless spray equipment or high pressure pumps)
• Safety equipment (e.g. respirator mask, safety glasses, gloves, safety belts, …)
• Thickness measuring device
• POWERSIL® HVIC
• Application guide

Silicone HVIC from WACKER

<table>
<thead>
<tr>
<th>Type</th>
<th>Solvent</th>
<th>Reinforcing Additive</th>
<th>Modifying Additive</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWERSIL® 567</td>
<td>Organic</td>
<td>Silica</td>
<td>-</td>
</tr>
<tr>
<td>POWERSIL® 552</td>
<td>Organic</td>
<td>Silica</td>
<td>ATH (fine grained)</td>
</tr>
<tr>
<td>POWERSIL® 553</td>
<td>Organic</td>
<td>Silica</td>
<td>ATH (coarse grained)</td>
</tr>
<tr>
<td>POWERSIL® 577 Plus</td>
<td>Water</td>
<td>Silica</td>
<td>ATH (fine grained)</td>
</tr>
</tbody>
</table>

Standard colors are white and gray. For detailed product properties please refer to the Technical Data Sheets available for download at www.wacker.com
Color and curing system can be adjusted to customer requirements depending on the order size.
Selected HVIC types have been tested in the 1,000 h Salt-Fog-Test (according to IEC 62217)
The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies’ raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties’ rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.