RG Insulators Employ a Unique Semi-Conductive Glaze Which Inhibits Arcing and Flashover.

Since they were first installed in the 1970’s, Lapp RG insulators have built an enviable operating record in contaminated areas where no standard insulator can perform. That’s because RG insulators make use of a unique semi-conducting glaze which effectively inhibits arcing and flashover.

Whether the contamination problem is the result of coastal salt fog or mist, industrial pollution, agricultural dust or chemicals, the tens of thousands of RG insulators already in service have provided excellent performance for utilities around the world.

**RG Insulators Can Significantly Reduce Construction and Operating Costs**

**They Reduce the Need to Over-Insulate**

Over-insulation may reduce the number of flashovers in contaminated areas, but its effectiveness is never certain. In addition, larger insulators may require larger structures, which can lead to higher costs.

When you choose RG insulators, you don’t need to over-insulate. In fact, RG insulators hold voltage in environments that caused flashover on regular insulators having two to three times the leakage distance.

That’s what we call performance.

**They Reduce the Need for Washing**

Washing can cost utilities hundreds of thousands of dollars a year; a cost which RG insulators eliminate.

They Reduce EMI Problems Associated With Insulators

The outstanding performance of RG insulators reduces both radio noise and TV interference. In fact, at operating voltage, RIV on RG insulators remains at near zero under most conditions of surface contamination.

**They Reduce the Need for Greasing or Coating**

Periodically applying silicone grease or RTV coating to insulators in contaminated areas is another costly maintenance procedure which RG insulators eliminate.

The Glaze on RG Insulators is a Permanent, Integral Part of the Insulator

Unlike protective coatings which are applied after an insulator is glazed, the semi-conductive glaze on RG insulators is a permanent, integral part of the insulator.

Because the glaze is applied as part of the normal manufacturing process, RG insulators are less costly than insulators which are first glazed with a regular glaze and then covered with a hydrophobic coating.

900 kV BIL Resistance Graded Station Posts at Hamilton Beach T.S.
RG Insulators Gain Their Superior Performance From Three Factors:

1. Linear Voltage Distribution
   Voltage drop across the entire length of the RG insulator surface is uniform so that all parts of the insulator are evenly stressed.

2. Heating Effect
   The small current flow over the electrically equivalent resistor created on the surface of an RG insulator warms the surface to a few degrees above the ambient temperature. This discourages moisture accumulation, and moisture is usually necessary to make contaminants conductive.

3. Reduction of Dry Band Arcing
   Dry bands form on RG insulators with uneven wetting and drying, just as they do on regular insulators. However, RG insulators provide a conductive shunt path across the dry bands, preventing any visible scintillations or arcing. The result? There are no local arcs that can grow into full length flashover.

They’re Backed By Years of Field Experience

Commercially available since 1970, RG insulators have been used in a broad range of applications, from moderate to extremely severe contamination. This experience puts Lapp in a position which no other manufacturer can match when it comes to helping you meet the contamination demands of your application.

It has also shown us ways in which to improve our product designs. All Lapp’s latest RG insulators demonstrate our commitment to providing the most comprehensive and up-to-date product designs available.

Want to Know More?

We recommend consulting Lapp directly when considering the installation of Resistance Graded Station Posts (RG®). For more details and technical assistance, write to Lapp or contact your Lapp representative.