Thermoseal Inc.
2350 Campbell Road
Sidney, OH 45365-9573

Phone: 937-498-2222
FAX: 937-498-7544 Admin.
FAX: 937-498-4911 Sales

What is Dielectric Strength?

In relation to gasketing applications, a material acts as a barrier to the flow of electrons along a metal surface or electric current from one conductive surface to another.

The dielectric strength is the maximum working voltage a material can withstand without breaking down, i.e., without experiencing failure of its insulating properties. At breakdown, the electric field frees bound electrons, turning the material into a conductor. The field strength at which breakdown occurs in a given case is dependent on the respective geometries of the dielectric (insulator) and the electrodes with which the electric field is applied, as well as the rate of increase at which the electric field is applied. Dielectric strength is usually expressed as a voltage gradient (such as volts per mm).

Dielectric Rankings of KLINGERSIL® Compressed Gasket Materials: