

# Kerite HV Cable

## 5 reasons why it's the best HV underground cable solution



### Why trust Kerite

Kerite HV cable is engineered for the longest service life of any transmission cable in the industry. Backed by complete factory and technical support services, Kerite comes through on the commitment to deliver the lowest total cost of ownership.

#### Kerite Cable Services: A critical advantage.

Kerite Cable Services (KCS) offers turnkey HV cable solutions to customers who need a single-source solution to their HV cable problems. KCS boasts more than 25 years of experience and has these capabilities:

- **Working in challenging environments**, including congested right-of-ways, crowded substations, river and bridge crossings, industrial facilities, subsea installations, and more.
- **Rapid response times**, supported by KCS engineering, management, and state-of-the-art technologies.
- **End-to-end project management**, from site surveys to design, installation, testing, and documentation.
- **Factory certified technicians**

Kerite's ability to back its HV cable with an equally high-caliber set of services is what makes us a utility's most trusted partner.

## Kerite HV Cable: What makes it the best in the business

### 1. Discharge Resistant Insulation

Partial discharge is caused by the electrical breakdown of air in the voids within the cable insulation – and it can lead to cable failure.

- **The test** that evaluates discharge resistance of different insulation types (ASTM D2275) shows Kerite Discharge Resistant EPR™ insulation with no insulation erosion after over 250 hours of testing.
- **Only Kerite** manufactures a corona resistant insulation system that meets the classification of the ICEA standard S-108-720-2012.
- **This unique feature** prevents the treeing process in Kerite Discharge Resistant EPR™ insulation, and as a result Kerite cable can last the lifetime of the installation.



**XLPE**  
Average 45 hours  
to failure



**TR-XLPE**  
Average 80 hours  
to failure



**Discharge Free EPR**  
Average 200 hours  
to failure

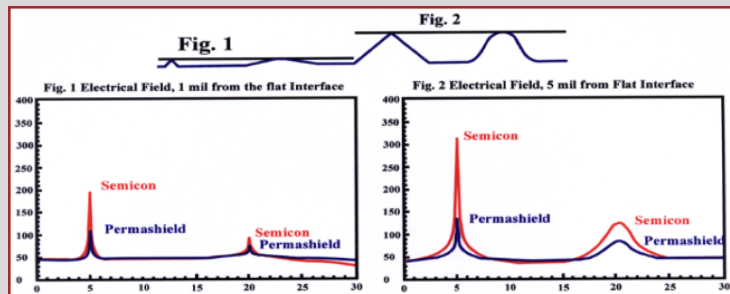


**Discharge Resistant EPR™**  
>250 hours without the  
start of any erosion

## 2. Permashield®

Permashield non-conducting stress control layer – a Kerite exclusive.

- **Permashield** is a high specific inductive capacity (SIC) material with insulating properties which delivers superior stress relief between the conductor and the insulation layer.
- **During extrusion**, Kerite performs a continuous 2kV DC production test for stress control layer continuity. The result is a robust cable design with stable long-term AC cable strength and impulse breakdown levels.



## 3. Transient Attenuation

The longer the cable length, the greater the amount of attenuation.

- **Kerite cables provide** a superior level of high frequency attenuation, and add another level of protection to the transmission and distribution system.
- **Kerite cable's electrical properties** cause the rate of rise of high frequency impulses to lengthen which reduces the potential damage to the system components from these impulses.
- **Kerite cable is four times more effective** in attenuating transients than EPR cable from other manufacturers and significantly outperforms TR-XLPE.

## 4. Long Service Life

Cable life is a function of design properties, manufacturing, and installation. We're confident enough to warranty it for life.

- **While the lifetime** of TR-XLPE insulated cables is up to 40 years, failures can start occurring at the cable half life of 20 years.
- **Kerite has never experienced any field related insulation failures for its EPR cables**, so the half life of Kerite cable has not been reached – despite its field use for over 50 years.

## 5. Superior Wet Performance

Kerite's proprietary EPR insulation is unaffected by moisture.

- **Kerite cable will perform without failure** in the typical utility trouble spots: flooded vaults, water-soaked conduit and high ground water applications.
- **Kerite cables** were used in the first submarine applications over 120 years ago.
- **Kerite submarine cables** are installed in the harshest marine environments.

