



EmPowr[®] Fill

EmPowr[®] Fill
Medium-Voltage EPR Cables
From The Industry Leader

General Cable's EmPowr[®] Fill technology has one of the industry's most comprehensive warranties. One reason we have been servicing the utilities market for nearly 60 years.





The performance requirements

for medium- and high-voltage cables are becoming more demanding each year. Because of a growing population and increased individual energy consumption, existing power delivery systems are overburdened. In addition to the alarming increase in demand, energy suppliers are facing unparalleled pressure to reduce installation and maintenance costs. General Cable has invested heavily in formulation technologies to provide cable compound solutions to meet the rigorous underground cable installations of today and the future.

EmPowr® Fill is the trade name for our filled insulation. The **EmPowr® Fill** formulation is based upon historically proven resin technology with low catalyst residues. These innovations have expanded the number of polymer architectures available to General Cable, making it possible to economically optimize the formulation for the most demanding underground cable applications.

Our **EmPowr® Fill** cable features:

- > Excellent AC breakdown strength retention during ICEA AWTT
- > Cleaner base resins and compounds
- > Continuously mixed compounds
- > Class 10000 clean room packaging and compound transfer at the plant
- > Triple extrusion
- > Low dissipation factor
- > Low insulation shield adhesion and clean stripping
- > Meets ICEA Class III Insulation 105°C/140°C Conductor Temperature Rating
- > Over 4 years under ACLT testing at 4Vg without a failure

General Cable is committed to its R&D efforts and stands behind our **EmPowr® Fill** technology with one of the industry's most comprehensive warranties. This product offering is part of our near-60-year history of providing high performance medium-voltage cables with filled insulation to the utility industry.

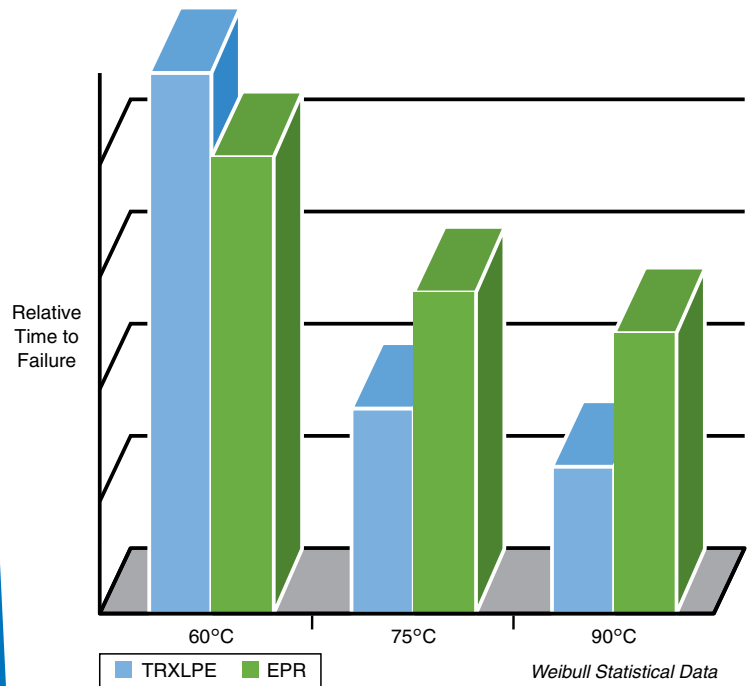
EmPowr® Fill is formulated for **High Operating Temperature** applications such as:

- > Urban underground network systems installed in conduit or duct banks (ask about our PowrPak® cable, specifically designed for PILC replacement)
- > Underground primary feeders and substation getaways
- > Larger conductor sizes where added flexibility may be desirable
- > Large commercial and industrial medium-voltage service feeders

...Anywhere cables are heavily loaded.

Research data has shown that cable life is directly related to operating temperature – *high operating temperatures shorten cable life*. The amount of cable life lost differs between unfilled and filled insulations. Shown to the right are compelling test results that support our position that filled insulations perform better in high-temperature applications.

Operating Temperature versus Cable Life



As demonstrated by the test data above, TRXLPE insulation performs as well as EPR insulation at lower operating temperatures. However, filled insulation outperforms unfilled insulation on cables tested at higher temperatures.

For Lead-Free cables operating at high temperatures and where superior flexibility is desired, General Cable recommends its **EmPowr® Fill LF** medium-voltage EAM cables. See our **EmPowr® Fill LF** brochure for details.

For cables operating at lower temperatures, General Cable recommends the **EmPowr® Link** medium-voltage TRXLPE insulated product line. See our **EmPowr® Link** brochure for details.

We “**EmPowr®**” you to work with our Engineering and Technology staff to provide a cable design for your specific need – be part of the “**EmPowr®**” generation.