Working together with our customers, Dow E&T has proven that using an engineered system of materials results in superior performance and reliability and can result in a lower total cost over the life of the system.

Why consider a system provider?
Mixing and matching materials used to construct cables may not yield optimum overall performance. Dow E&T products are engineered to work best when combined together as a system. In cable applications, our insulation, jacketing and semiconductive shield compounds can be purchased as a complete system. Each of these materials has been engineered, tested and validated to meet and exceed industry standards.

Combining our latest TR-XLPE insulation, DOW ENDURANCE™ HFDC-4202 EC, with our super-smooth semiconducting conductor shield, low-strip insulation shield and multiple options for jacketing compounds, Dow E&T offers a complete system that demonstrates excellent moisture tolerance, enables simpler cable designs and enhances processing performance for more robust cable manufacturing. This enables production of cables to exacting standards by cable makers committed to providing high-quality, long-life and reliable cables for existing and growing UG distribution infrastructure.

Ask your Dow representative about what goes into the construction of the cables you need to trust for long service life and reliability. Quality materials, from a consistent and reliable source, matter.
Product advantages
Polyethylene-based MV cable compounds come from the DOW ENDURANCE™ family of products. The complete system is comprised of:

- DOW ENDURANCE™ HFDC-4202 EC TR-XLPE insulation
- DOW ENDURANCE™ HFDA-0800/0802 BK super-smooth semiconductive shield compound
- DOW ENDURANCE™ HFDA-0693 BK and HFDA-0693 BK LS insulation shield compounds
- Dow AXELERON™ GP G-6059 BK jacket compound

Used together, these compounds can help construct the ultimate MV UG distribution cable.

While cables created using Dow E&T’s TR-XLPE deliver the best performance, we understand that alternate constructions are a necessity and can be accommodated through our growing portfolio of solutions.

For installations requiring increased cable flexibility or filled-insulation alternatives, Dow E&T offers ENGAGE™ polyolefin elastomers for EAM insulation and NORDEL™ EPDM (ethylene propylene diene monomer) for EPR insulation, as well as for accessories.

Trust an industry leader
From polymerization through compounding, Dow E&T delivers system solutions that meet or exceed the highest international standards. By specifying UG system components made with Dow materials, you can count on reliability, longevity and lower expected lifetime system costs. For materials science-based system solutions for cables and accessories, trust an industry leader as a consistent and reliable source – trust Dow E&T.

### Insulation material comparison

<table>
<thead>
<tr>
<th>DOW ENDURANCE™ HFDC-4202 EC TR-XLPE insulation offers:</th>
<th>Dow AXELERON™ GP G-6059 BK LLDPE jacket compound enables:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Enhanced electrical performance (projected longer life)</td>
<td>- Excellent mechanical and physical properties</td>
</tr>
<tr>
<td>- Higher water tree retardance</td>
<td>- Better stress-crack resistance</td>
</tr>
<tr>
<td>- Lower and consistent insulation shield strip force for ease of installation</td>
<td>- Good processability</td>
</tr>
<tr>
<td>- Improved heat resistance – MV 105 °C rating</td>
<td></td>
</tr>
<tr>
<td>- Robust cable manufacturing</td>
<td></td>
</tr>
</tbody>
</table>

DOW ENDURANCE™ HFDA-0800/0802 BK super-smooth semiconductive shield compound outperforms conventional shields with:

- Cleanliness and smoothness
- Better performance
- Improved breakdown strength
- Longer service life

DOW ENDURANCE™ HFDA-0693 BK/0693 BK LS shield demonstrates:

- Lower strip capability
- Ease of installation
- Likelihood of higher-quality accessory installation

### Cable Benefits

<table>
<thead>
<tr>
<th>Cable Benefits</th>
<th>TR-XLPE</th>
<th>EPR</th>
<th>EAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater flexibility for ease of installation and use in constrained space</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>Environmental sustainability</td>
<td>A</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>Recyclability</td>
<td>B</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>105/140 °C insulation rating</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Lower dielectric losses for longer service life</td>
<td>A</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>Highest retained breakdown strength (AWTT)</td>
<td>A</td>
<td>C</td>
<td>B</td>
</tr>
</tbody>
</table>

A=Best, B=Better, C=Good

Information represents a generalized view based on widely available formulations.

---

Dow Electrical & Telecommunications
Houston Dow Center
1254 Enclave Parkway
Houston, TX 77077
USA

North America
Toll Free 800 441 4369
dow.com
dow.com/electrical
dowhvpower.com

International
Latin America + 55 11 5184 8722
Europe + 800 3 694 63 87
+ 31 115 67 2626
Italy + 800 783 825
Pacific + 800 7776 7776
+ 60 3 7965 5392
China + 400 889 0789
+ 86 21 3851 4988

Notice: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer’s use and for ensuring that the Customer’s workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. No warranties are given; all implied warranties of merchantability or fitness for a particular purpose are expressly excluded. This document is intended for global use.

™Trademark of The Dow Chemical Company