ECCOH™ XL Cross-Linkable Solutions for Photovoltaic Cables

Enabling a more sustainable and safer planet, Avient has developed ECCOH™ XL Cross-Linkable Solutions for photovoltaic cable applications (ECCOH XL 8148). Permanently outside, they have high weather and UV resistance, maintain mechanical performance over a wide range of temperatures and offer good electrical and flame retardant performance.

**KEY CHARACTERISTICS**

**UV and Weather Resistance** - ECCOH XL 8148 solutions are suitable for permanent outdoor use. They have outstanding UV and weather resistance, passing Arrhenius lifetime prediction tests of 20,000 hours as per the IEC 60216-1 standard. They also provide good cold bending performance and elongation at break at as low as -40°C, making them suitable for use over a wide range of temperatures.

**Mechanical and Electrical Performance** - Mechanical performance including tensile strength, cold bending and elongation at break perform well at a low thickness enabling our customers to save material and weight. When used as insulation the electrical performance of these solutions is very good.

**Flame Retardant Performance** - ECCOH XL 8148 cable solutions are non-halogen flame retardant offering low smoke and fume performance. They pass EN 50618 and IEC 60332-1 standards on the assembled cable (if the cable jacketing and insulation are both produced with ECCOH XL 8148 solutions).

Simple Sourcing - ECCOH XL 8148 polymers can be used for both cable jacketing and insulation, reducing the need for multiple materials.

Catalyst Content - ECCOH XL 8148 solutions are REACH compliant and require 50% less catalyst compared with competitive solutions, while providing the same crosslinking efficacy.

Manufacturing Ease - ECCOH XL 8148 solutions enable fast processing speeds compared to alternatives and can be extruded using existing machinery. Avient’s technical experts can help configure processing parameters to optimize line speed. The opportunity to use these solutions for both insulation and jacketing can further improve and speed up the manufacturing process.

**MARKETS AND APPLICATIONS**

ECCOH XL 8148 solutions have been developed specially for use in photovoltaic cable used in solar power farms. The can be used for both cable jacketing and insulation.