



» PRODUCT BULLETIN

ECCOH™ XL Cross-Linkable Solutions (8001) Moisture-cured cross-linkable, low smoke and fume, non-halogen (LSFOH) formulations for flame retardant wire and cable applications

ECCOH™ XL Cross-Linkable Solutions (ECCOH XL 8001) are non-halogenated flame retardant formulations for the manufacturing of thermoset cable insulation. When used with a catalyst masterbatch, these materials enable the manufacturing of thermoset insulation using the silane chemical crosslinking process. The formulation of ECCOH XL 8001 has been optimized so that, when used in combination with the catalyst, ambient curing can be accomplished in a short time, with the material exhibiting very good Hot Set Test values.

Manufacturers of cable insulation who require flame retardance in their products benefit from ECCOH XL 8001. The material adds value to this insulation in myriad ways:

- Good flame retardancy with low smoke, toxicity & corrosiveness
- Excellent mechanical properties
- Good surface smoothness
- Ambient moisture curing with good Hot Set Test
- Very good electrical properties

Manufacturing of cable insulation with ECCOH XL 8001 is done using silane chemical crosslinking. This technology offers manufacturing efficiencies versus other crosslinking methods:

- Reduction in logistics management: No secondary steps after manufacturing; no need for E-beam radiation for effective crosslinking
- Rapid ambient curing: Typically in less than 15 days depending on the climatic condition, wall thickness and catalyst level
- No additional capital investment: The material can be processed on a conventional extrusion line
- Easy handling: ECCOH XL 8001 is used with 2.5–5% of catalyst masterbatch
- No pre-drying: No need to pre-dry the material if it is stored correctly



KEY CHARACTERISTICS

Avient's ECCOH line of highly flame retardant, non-halogenated materials limits the emission of corrosive gases when burning. The low toxicity of the gases which are emitted, and the reduced smoke density created when these materials burn, helps people to escape burning environments and also limits damage to property.

- **Highly flame retardant**—helps to prevent a fire, or limit the damage if one starts
- **Non-halogenated**—in the case of a fire, there are no acid gas emissions which can damage equipment and buildings
- **Low smoke**—in the event of fire, people can locate escape routes, and fire fighters can quickly find the source of the fire

- **Low toxicity**—in the event of a fire, people are not overcome by toxic fumes
- **Low dripping**—no flaming droplets which can further propagate the fire or cause injury
- **Low emission of corrosive gases when burned**—avoids potential damage to electrical components and equipment, and improves human safety

MARKETS AND APPLICATIONS

The ECCOH XL 8001 is a flame retardant material for thermoset cable insulation. This material meets the industry standards typical for cable insulation. These include EN50363-5/BS7211-EI5 Insulation General Performance for Low Voltage Cable for Building and Construction, and IEC60092-360-HF 90 Insulation for Shipboard Cable.

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