

Product: Genflam® XLOH EFR
Gencon Code: 2614 (Black)
2615 (White)
4301 (Red)



Revision Date: Dec 16, 2019

Genflam® XLOH EFR (Enhanced Flame Retardant) Series are peroxide crosslinked thermoset jacket materials designed to provide the wire and cable industry with a low smoke non halogenated jacketing compound with faster curing option for improved production efficiencies, specifically for vulcanization utilizing the mold cure process. This series of compounds maintains a balance of excellent physical properties and ease of processing, and adds improved vertical flame performance in the overall cable design and meet the requirements of MIL-24640B and MIL-24643B military shipboard requirements.

Key Features:

- Enhanced Flame Performance
- Excellent Processing
- UV Stabilized
- No Heavy Metals or Halogens
- RoHS and REACH Compliant

Physical Properties:

Density:	1.50 g/cm ³	Durometer:	96 Shore A
Tensile:	1800 psi (typical)	Low Temp. Brittle Point:	-26°C
Elongation:	200% (typical)	Deformation, 2000g:	<5%@121°C
Tear:	45 lbf/in (typical)		

Combustion Properties:

Limited Oxygen Index (LOI):	38%
Acid Gas:	0.2%

Heat Aging:

	<u>7d@136°C</u>
Tensile Retention	105%
Elongation Retention	78%
Hot Creep @ 200°C	<10%
Hot Set @ 200°C	0%

Fluid Resistance:

	<u>IRM902 - 18h@121°C</u>	<u>Diesel - 24h@100°C</u>
Tensile Retention	98%	58%
Elongation Retention	94%	80%

Weathering:

	<u>720 Hours under QUV Testing</u>
Tensile Retention	92%
Elongation Retention	87%

Suggested Running Conditions:

Extruder L/D:	15:1 or 20:1	Comp. Ratio:	1.25:1	Screen Pack:	20 Mesh or none
Screw Type:	Single Flight metering, without mixing section				
Feed Zone:	190°F	Center Zone:	190-200°F	Head/Die:	220°F
Conductor Pre-heat:	150°F (recommended)				

Processing Techniques: Genflam® XLOH EFR Series have been designed to process easily on standard extruders used in the production of wire and cable products. The material has been designed to process similar to elastomeric compounds, attaining maximum output levels at relatively low shear rates. Care should be taken to ensure that screw compression ratio levels are below 1.5:1, and flow restrictions in the crosshead are kept to a minimum. Melt temperatures higher than 230°F (110 °C) should be avoided.

The material can be extruded using either pressure or sleeving techniques. For maximum physical properties, tooling utilizing a slight draw down ratio (1.15 to 1) can be used. This series has been specifically designed for processes utilizing the mold cure method. Minimum mold cure temperatures of 230°F (110 °C) are recommended.

The material is supplied as free flowing pellets, packaged in sealed foil lined boxes and does not need to be dried prior to use. It is recommended that the foil liners be resealed after use to prevent outside contamination or water absorption during storage. If the material has been exposed to a high humidity environment, or the foil liner has not been sealed, it is recommended the material be dried for a minimum of 4 hours at 140°F (60 °C) in a standard desiccant style drier prior to use.
