

Trilene®

Go Green with Trilene...

Trilene® liquid polymers are a family of viscous, low molecular weight ethylene-propylene copolymers and ethylene-propylene non conjugated diene terpolymers. They are polymerized randomly to produce liquid elastomers with stable, saturated hydrocarbon backbones.

The terpolymers, which derive their reactivity from pendant unsaturation, are useful in applications requiring crosslinking. Trilene® may be used alone or in combination with solid elastomers to allow curing of conventional rubber along with the processing versatility of a liquid. Trilene® liquid polymers can be used in a wide variety of applications.

Trilene® liquid polymers are employed as the main polymeric component in a number of formulations. Terpolymers are often used where their low molecular weight, room temperature curability and excellent aging resistance are major advantages.

When formulated in automotive tapes and pumpable sealants, the Trilene® provides good low temperature flexibility, low moisture permeability and excellent adhesion to oily metals. Trilene® based sealants have been found to reduce glass fogging compared with conventional PVC and oil-extended SBR sealants. In the coatings area, Trilene® based formulations are being used for roof repair coatings, pond/pit liners and ablative smoke stack paints.

Trilene® copolymer formulations are also used in mastics in place of polyisobutylene polymers because of their improved aging properties.



Trilene® liquid polymers possess the same characteristics of solid EPDM but in a liquid form. These features include resistance to oxygen, ozone, heat and weathering, resistance to many non-hydrocarbon fluids such as alcohols, glycols, ketones and phosphate esters as well as good low temperature properties.. Trilene® can be used as the sole polymer for products processed in liquid form. The liquid form also permits the partial or complete replacement of volatile, extractable plasticizers in solid polymer uses.

Adhesives based on Trilene® can be formulated to be heat activated or cure at room temperature. Sealants based on Trilene that can be pumped and foamed are also feasible. The low volatility of Trilene® permits the formulation of low VOC recipes.

For brake part applications, the replacement of liquid plasticizer by Trilene® eliminates contamination of the brake fluid by the extractable plasticizer, prevents shrinkage of the part and consequent leakage of brake fluid while maintaining low compound viscosity for improved processing and molding.

Electrical insulation compounds based on EPDM are often stiff and board-like during processing. The addition of Trilene® can lower viscosity to improve extrusion and reduce scrap rates without impairing good electrical properties. Trilene® can also be used alone for cable sealing and liquid potting compounds.

In waterproof footwear and sporting boots, the base natural rubber can be augmented with EPDM and Trilene® to provide outstanding static ozone resistance with reduced staining, improved calendaring, increased scorch safety while maintaining the high strength properties on natural rubber.

The good weathering of Trilene® leads to its use in roofing membrane, pond liners and other outdoor applications. Trilene® can act as a dispersion aid for fibers and other additives that are difficult to disperse can benefit by making a master batch of the active ingredient in Trilene®.

Rubber roll covers for printing, paper mills and industrial applications can benefit from the addition of Trilene® to lower viscosity, improve knitting and minimize extractable and shrinkage.

Trilene® is a viscosity modifier for industrial and transportation gear oils. It can be used with synthetic or semi-synthetic formulations to range high viscosity fluids.

Related Applications:

Adhesives & Sealants
Appliances
Automotive
Building & Construction
Electric & Electronics
Fiber, Textile, Sporting Goods, and Footwear
Healthcare
Lubricants
Paints and Coatings
Plastics
Technologies
TPO / TPV



For more information on Royalflex™ modifiers

please contact your local sales office or Lion Copolymer customer service.

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