

Halogen & Non-Halogen Engineered Polymers

Next-generation Estane Engineered Polymer's with flame-retardants are available in halogenated and non-halogenated versions.

Overview

Lubrizol's Estane[®] Engineered Polymers offer zero halogen flame retardant compounds which combine good mechanical properties and processing. For some specific applications in building & construction environments and mass transit construction, flame retardancy and low-smoke fire materials are necessary. Lubrizol continues to offer a selection of halogenated flame retardant solutions.



Power/Energy

Telecommunication

Geophysical

Automotive

Industrial

Mass transit

Benefits of Estane[®] Engineered Polymers

In the last decade, environmental groups have lobbied increasingly to bring the emissions of carcinogenic dioxins and halogens down, as well as to decrease the presence of certain stabilizers, plasticizers and flame-retardants. This has had its effects on the use of PVC in the wire & cable industry, as well as halogenated flame-retardants in thermoplastic polyurethanes (TPUs). The European Union has shifted its focus to non-halogenated flame retardant compounds in legislation and for specifications. The European cable specifications are less stringent on standards for ignitability and flame propagation to attain the objective of "Zero Halogen/ Low Smoke".

Lubrizol is responding to this challenge by continuing to develop and introduce Estane[®] Engineered Polymers with zero halogen content while maintaining the essential mechanical and processing properties inherent to TPUs and other engineered polymers.

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Halogen & Non-Halogen Engineered Polymers

Applications

Power/Energy

building/construction

Automotive

harnesses

Industrial

robot

Mass Transit

train/boat/airplane,
subway/airport/public buildings

Telecommunication

Alternative Energy

Product Specifications

Product Family	Product	Hardness	Finish	UL Vertical Burn Rating	Mechanical (Tensile)	Low Smoke (Yes or No)	Comment
Halogen	58370	80A	Matte	V2 / LOI 25	High	No	Standard Grade
	58202	85A	Matte	V0 / LOI 30	High	No	Standard Grade
	58866	85A	Gloss	V0 / LOI 30	High	No	Clear Version
	58211	90A	Matte	V0 / LOI 32	High	No	Standard Grade
	X-1311	95A	Matte	V0 / LOI 40	Average	No	FT-4 Capable
Non-Halogen	ZHF 80AT3	80A	Gloss	V2 / LOI 25	High	No	Softest NHFR / Clear
	ZHF 80AT3	80A	Gloss	V2 / LOI 25	High	No	Softest NHFR / Clear
	58244	90A	Matte	V0 / LOI 28	Average	Yes	Standard Grade
	ZHF 90AT0	90A	Gloss	V2 / LOI 24	High	No	Clear Version
	ZHF 90AT2	90A	Matte	V2 / LOI 25	High	Yes	Improved Mechanicals
	ZHF 92AT3	90A	Matte	V0 / LOI 33	Average	No	Good Mechanicals
	X-1633	94A	Matte	V0 / LOI 33	High	Yes	Low Smoke
	ZHF 95AT3	95A	Matte	V0 / LOI 39	Average	No	High LOI



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