

## LATI LARIL 13-V1KC Mineral Filled Polyphenylene Oxide (PPOm) (UL94V-1) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether, Mineral Filled

### Material Notes:

Description: Laril thermoplastics are polyphenylene oxide (PPOm) products. They exhibit excellent toughness, even at low temperatures, good thermal resistance and dimensional stability are the most important properties featured by the Larils which can therefore be used within a wide range of temperatures (-40°C / +110°C). The Larils feature exceptional resistance to hydrolysis and are therefore applicable also in contact with very hot water. Specific Notes for this Material: UL94V-1 self-extinguishing, without halogens or red phosphorus; with mineral fillers; excellent dimensional stability; good resistance to tracking. Disclaimer from LATI: This document contains information based on average values as obtained from the results of laboratory tests and observations made on LATI materials. Tested materials were injection molded, used in their natural color, and conditioned in compliance with Standard ASTM D 618, procedure A. These values refer to LATI's best technical and scientific knowledge at the moment of testing and cannot be used as a basis for the development of applications. For a better assessment of the materials, you are kindly requested to contact LATI's technical or commercial offices, which are at your disposal and will supply detailed information on the most suitable characteristics for their intended use. With reference to DPR n.224 dated May 24, 1988, issued in accordance with EC Guide-lines 85/374, LATI Industria Termoplastici S.p.A. declines all responsibility arising from an improper use of the products described in this document. All data provided by LATI.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LATI-LARIL-13-V1KC-Mineral-Filled-Polyphenylene-Oxide-PPOm-UL94V-1-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_LATI-LARIL-13-V1KC-Mineral-Filled-Polyphenylene-Oxide-PPOm-UL94V-1-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Linear Mold Shrinkage	0.0035 cm/cm	0.0035 in/in	LATI
Linear Mold Shrinkage, Transverse	0.0035 cm/cm	0.0035 in/in	LATI

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	84	84	ASTM D785
Tensile Strength, Ultimate	65.0 MPa	9430 psi	ISO 527
	16.0 MPa	2320 psi	ISO 527
	@Temperature 120 °C	@Temperature 248 °F	
	38.0 MPa	5510 psi	ISO 527
	@Temperature 90.0 °C	@Temperature 194 °F	
	52.0 MPa	7540 psi	ISO 527
	@Temperature 60.0 °C	@Temperature 140 °F	
Flexural Modulus	7.10 GPa	1030 ksi	ASTM D790

Mechanical Properties	Metric	English	Comments
	@Temperature 120 °C	@Temperature 248 °F	
	4.70 GPa	682 ksi	ASTM D790
	@Temperature 90.0 °C	@Temperature 194 °F	
	6.40 GPa	928 ksi	ASTM D790
	@Temperature 60.0 °C	@Temperature 140 °F	
Izod Impact, Notched	0.220 J/cm	0.412 ft-lb/in	ASTM D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.220 J/cm	0.412 ft-lb/in	ASTM D256
	@Temperature -20.0 °C	@Temperature -4.00 °F	
	0.350 J/cm	0.656 ft-lb/in	ASTM D256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact Unnotched	1.10 J/cm <sup>2</sup>	5.24 ft-lb/in <sup>2</sup>	DIN 53453
	@Temperature -20.0 °C	@Temperature -4.00 °F	
	1.10 J/cm <sup>2</sup>	5.24 ft-lb/in <sup>2</sup>	DIN 53453
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	1.10 J/cm <sup>2</sup>	5.24 ft-lb/in <sup>2</sup>	DIN 53453
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	127 °C	261 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	120 °C	248 °F	ASTM D648
Vicat Softening Point	130 °C	266 °F	50°C/h 50N; ISO 306
Flammability, UL94	V-1	V-1	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-0	V-0	
	@Thickness 6.00 mm	@Thickness 0.236 in	
Oxygen Index	30 %	30 %	ISO 4589
Glow Wire Test	960 °C	1760 °F	IEC 695-2-1
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Thermal Properties	960 °C Metric	1760 °F English	Comments
	@Thickness 1.00 mm	@Thickness 0.0394 in	

Electrical Properties	Metric	English	Comments
Dielectric Strength	22.0 kV/mm @Thickness 2.00 mm	559 kV/in @Thickness 0.0787 in	IEC 243-1
Comparative Tracking Index	400 V	400 V	IEC 112

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 280 °C	500 - 536 °F	
Mold Temperature	80.0 - 100 °C	176 - 212 °F	
Drying Temperature	100 - 110 °C	212 - 230 °F	Requested for non-reinforced self-extinguishing types. Temperature can be reduced when using vacuum ovens.
Dry Time	>= 3 hour	>= 3 hour	Requested for non-reinforced self-extinguishing types. Drying time can be reduced when using vacuum ovens.

Descriptive Properties	Value	Comments
Heat Resistance - Ball Test (125°C)	Y	IEC 335
Heat Resistance - Ball Test (165°C)	N	IEC 335
Injection Speed	medium	
Needle Burner Test	Y	1.47 mm
	Y	3.05 mm

## Contact Songhan Plastic Technology Co.,Ltd.

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