

## LATI LARIL 13 G/30 30% Glass Fiber Reinforced Polyphenylene Oxide (PPOm) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether, 30% Glass 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: 30% glass fiber; excellent dimensional stability; high rigidity; low of linear thermal expansion coefficient; good thermal resistance. 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-G30-30-Glass-Fiber-Reinforced-Polyphenylene-Oxide-PPOm-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_LATI-LARIL-13-G30-30-Glass-Fiber-Reinforced-Polyphenylene-Oxide-PPOm-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.040 %	0.040 %	at 23°C; ISO 62
Linear Mold Shrinkage	0.0025 cm/cm	0.0025 in/in	LATI
Linear Mold Shrinkage, Transverse	0.0025 cm/cm	0.0025 in/in	LATI

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	93	93	ASTM D785
Tensile Strength, Ultimate	116 MPa	16800 psi	ISO 527
	69.0 MPa	10000 psi	ISO 527
	@Temperature 120 °C	@Temperature 248 °F	
	101 MPa	14600 psi	ISO 527
	@Temperature 90.0 °C	@Temperature 194 °F	
	112 MPa	16200 psi	ISO 527
	@Temperature 60.0 °C	@Temperature 140 °F	

<b>Elemental Modulus Mechanical Properties</b>	<b>7.85 GPa Metric</b>	<b>1140 ksi English</b>	<b>ASTM D790 Comments</b>
	7.05 GPa @Temperature 120 °C	1020 ksi @Temperature 248 °F	ASTM D790
	7.45 GPa @Temperature 90.0 °C	1080 ksi @Temperature 194 °F	ASTM D790
	7.60 GPa @Temperature 60.0 °C	1100 ksi @Temperature 140 °F	ASTM D790
<b>Izod Impact, Notched</b>	0.500 J/cm @Temperature -40.0 °C	0.937 ft-lb/in @Temperature -40.0 °F	ASTM D256
	0.850 J/cm @Temperature -20.0 °C	1.59 ft-lb/in @Temperature -4.00 °F	ASTM D256
	0.850 J/cm @Temperature 23.0 °C	1.59 ft-lb/in @Temperature 73.4 °F	ASTM D256
<b>Charpy Impact Unnotched</b>	2.20 J/cm <sup>2</sup> @Temperature -20.0 °C	10.5 ft-lb/in <sup>2</sup> @Temperature -4.00 °F	DIN 53453
	2.20 J/cm <sup>2</sup> @Temperature -40.0 °C	10.5 ft-lb/in <sup>2</sup> @Temperature -40.0 °F	DIN 53453
	2.20 J/cm <sup>2</sup> @Temperature 23.0 °C	10.5 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	DIN 53453

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
<b>CTE, linear</b>	30.0 µm/m-°C @Temperature 20.0 °C	16.7 µin/in-°F @Temperature 68.0 °F	ASTM D696
<b>Deflection Temperature at 0.46 MPa (66 psi)</b>	134 °C	273 °F	ASTM D648
<b>Deflection Temperature at 1.8 MPa (264 psi)</b>	127 °C	261 °F	ASTM D648
<b>Vicat Softening Point</b>	137 °C	279 °F	50°C/h 50N; ISO 306
<b>Flammability, UL94</b>	HB @Thickness 1.50 mm	HB @Thickness 0.0591 in	
<b>Oxygen Index</b>	26 %	26 %	ISO 4589

Electrical Properties	Metric	English	Comments
Dielectric Strength	23.0 kV/mm	584 kV/in	IEC 243-1
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Comparative Tracking Index	235 V	235 V	IEC 112

Processing Properties	Metric	English	Comments
Melt Temperature	270 - 290 °C	518 - 554 °F	
Mold Temperature	90.0 - 110 °C	194 - 230 °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 - high	
Needle Burner Test	N	1.47 mm
	N	3.05 mm

## Contact Songhan Plastic Technology Co.,Ltd.

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