

## Unitika L-1003PA

Category : Polymer , Thermoplastic , Polyarylate

### Material Notes:

Heat resistance, creep resistance, and excellent lubricant Information provided by Unitika Ltd.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Unitika-L-1003PA.php](http://www.lookpolymers.com/polymer_Unitika-L-1003PA.php)

Physical Properties	Metric	English	Comments
Density	1.23 g/cc	0.0444 lb/in <sup>3</sup>	ASTM D792
Water Absorption	0.26 % @Thickness 3.17 mm, Time 86400 sec	0.26 % @Thickness 0.125 in, Time 24.0 hour	ASTM D570
Linear Mold Shrinkage, Flow	0.0080 cm/cm @Thickness 3.00 mm	0.0080 in/in @Thickness 0.118 in	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	123	123	ASTM D785
Tensile Strength at Break	70.0 MPa	10200 psi	ASTM D638
Elongation at Break	60 %	60 %	ASTM D638
Flexural Strength	82.0 MPa	11900 psi	ASTM D790
Flexural Modulus	2.20 GPa	319 ksi	ASTM D790
Izod Impact, Notched	2.80 J/cm @Thickness 3.17 mm	5.25 ft-lb/in @Thickness 0.125 in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	62.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	34.4 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
Deflection Temperature at 1.8 MPa (264 psi)	175 $^{\circ}\text{C}$	347 $^{\circ}\text{F}$	ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	ASTM D257
Dielectric Constant	3.0 @Frequency 1.00e+6 Hz	3.0 @Frequency 1.00e+6 Hz	ASTM D150

Dielectric Strength Electrical Properties	31.0 kV/mm Metric	787 kV/in English	ASTM D149 Comments
Dissipation Factor	0.010 @Frequency 1.00e+6 Hz	0.010 @Frequency 1.00e+6 Hz	ASTM D150
Arc Resistance	127 sec	127 sec	ASTM D495

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	310 - 330 °C	590 - 626 °F	
Middle Barrel Temperature	330 - 350 °C	626 - 662 °F	
Front Barrel Temperature	350 - 370 °C	662 - 698 °F	
Nozzle Temperature	350 - 370 °C	662 - 698 °F	
Mold Temperature	120 - 140 °C	248 - 284 °F	actual surface temp
Drying Temperature	140 °C	284 °F	
Dry Time	6.00 - 24.0 hour	6.00 - 24.0 hour	
Back Pressure	0.490 - 1.47 MPa	71.1 - 213 psi	gage pressure

## Contact Songhan Plastic Technology Co.,Ltd.

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