

## LG Chemical Lupox<sup>®</sup> GP2400G PBT+GF40%

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 30% Glass Fiber Filled

### Material Notes:

Description: Injection Molding, PBT+GF40%, HCFC Resistant  
Application: E&E (Muffler of Refrigerator)  
CAS No. 65997-17-3 and 30965-26-5  
Information provided by LG Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LG-Chemical-Lupox-GP2400G-PBTGF40.php](http://www.lookpolymers.com/polymer_LG-Chemical-Lupox-GP2400G-PBTGF40.php)

| Physical Properties         | Metric                                     | English                                     | Comments          |
|-----------------------------|--|---|-------------------|
| Specific Gravity            | 1.61 g/cc                                  | 1.61 g/cc                                   | ASTM D792         |
| Maximum Moisture Content    | 0.020                                      | 0.020                                       | Injection Molding |
| Linear Mold Shrinkage, Flow | 0.0040 - 0.010 cm/cm<br>@Thickness 3.20 mm | 0.0040 - 0.010 in/in<br>@Thickness 0.126 in | ASTM D955         |

| Mechanical Properties     | Metric  | English   | Comments             |
|---------------------------|---|---|----------------------|
| Tensile Strength at Break | 127 MPa<br>@Thickness 3.20 mm                             | 18400 psi<br>@Thickness 0.126 in                              | 50mm/min; ASTM D638  |
| Elongation at Break       | 3.0 %<br>@Thickness 3.20 mm                               | 3.0 %<br>@Thickness 0.126 in                                  | 5mm/min; ASTM D638   |
| Flexural Yield Strength   | 191 MPa<br>@Thickness 3.20 mm                             | 27700 psi<br>@Thickness 0.126 in                              | 1.3mm/min; ASTM D790 |
| Flexural Modulus          | 10.0 GPa<br>@Thickness 3.20 mm                            | 1450 ksi<br>@Thickness 0.126 in                               | 1.3mm/min; ASTM D790 |
| Izod Impact, Notched      | 0.922 J/cm<br>@Thickness 3.20 mm,<br>Temperature 23.0 Å°C | 1.73 ft-lb/in<br>@Thickness 0.126 in,<br>Temperature 73.4 Å°F | ASTM D256            |

| Thermal Properties                          | Metric                        | English                        | Comments              |
|---|-------------------------------|--------------------------------|-----------------------|
| Melting Point                               | 225 Å°C                       | 437 Å°F                        | @ Break; ASTM D3418   |
| Deflection Temperature at 0.46 MPa (66 psi) | 220 Å°C<br>@Thickness 6.40 mm | 428 Å°F<br>@Thickness 0.252 in | Unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 210 Å°C<br>@Thickness 6.40 mm | 410 Å°F<br>@Thickness 0.252 in | Unannealed; ASTM D648 |

| Thermal Properties<br><small>UL RTI, Electrical</small> | 75.0 Å°C<br>Metric    | 167 Å°F<br>English     | Comments |
|---|-----------------------|------------------------|----------|
|   | @Thickness >=0.800 mm | @Thickness >=0.0315 in |          |
|   | 75.0 Å°C              | 167 Å°F                |          |
|   | @Thickness >=3.00 mm  | @Thickness >=0.118 in  |          |
| UL RTI, Mechanical with Impact                          | 75.0 Å°C              | 167 Å°F                |          |
|   | @Thickness >=0.800 mm | @Thickness >=0.0315 in |          |
|   | 75.0 Å°C              | 167 Å°F                |          |
|   | @Thickness >=3.00 mm  | @Thickness >=0.118 in  |          |
| UL RTI, Mechanical without Impact                       | 75.0 Å°C              | 167 Å°F                |          |
|   | @Thickness >=0.800 mm | @Thickness >=0.0315 in |          |
|   | 75.0 Å°C              | 167 Å°F                |          |
|   | @Thickness >=3.00 mm  | @Thickness >=0.118 in  |          |
| Flammability, UL94                                      | HB                    | HB                     |          |
|   | @Thickness >=0.800 mm | @Thickness >=0.0315 in |          |
|   | HB                    | HB                     |          |
|   | @Thickness >=3.00 mm  | @Thickness >=0.118 in  |          |

| Electrical Properties      | Metric                | English                | Comments              |
|----------------------------|-----------------------|------------------------|-----------------------|
| Volume Resistivity         | 1.00e+17 ohm-cm       | 1.00e+17 ohm-cm        | ASTM D257             |
| Dielectric Strength        | 16.0 kV/mm            | 406 kV/in              | ASTM D149             |
|                            | @Thickness 1.00 mm    | @Thickness 0.0394 in   |                       |
| Arc Resistance             | 60 - 120 sec          | 60 - 120 sec           | ASTM D495             |
| Comparative Tracking Index | 400 V                 | 400 V                  | Solution A; IEC 60112 |
| Hot Wire Ignition, HWI     | 7.0 - 15 sec          | 7.0 - 15 sec           |                       |
|                            | @Thickness >=0.800 mm | @Thickness >=0.0315 in |                       |
|                            | 7.0 - 15 sec          | 7.0 - 15 sec           |                       |
|                            | @Thickness >=3.00 mm  | @Thickness >=0.118 in  |                       |
| High Amp Arc Ignition, HAI | 60 - 120 arcs         | 60 - 120 arcs          |                       |
|                            | @Thickness 0.800 mm   | @Thickness 0.0315 in   |                       |

| Electrical Properties                | Metric             | English             | Comments |
|--------------------------------------|--------------------|---------------------|----------|
|                                      | @Thickness 3.00 mm | @Thickness 0.118 in |          |
| High Voltage Arc-Tracking Rate, HVTR | 25.4 - 50.0 mm/min | 1.00 - 1.97 in/min  |          |

| Processing Properties     | Metric           | English          | Comments          |
|---------------------------|------------------|------------------|-------------------|
| Rear Barrel Temperature   | 235 - 250 Â°C    | 455 - 482 Â°F    | Injection Molding |
| Middle Barrel Temperature | 240 - 250 Â°C    | 464 - 482 Â°F    | Injection Molding |
| Front Barrel Temperature  | 245 - 255 Â°C    | 473 - 491 Â°F    | Injection Molding |
| Nozzle Temperature        | 245 - 255 Â°C    | 473 - 491 Â°F    | Injection Molding |
| Melt Temperature          | 245 - 255 Â°C    | 473 - 491 Â°F    | Injection Molding |
| Mold Temperature          | 60.0 - 100 Â°C   | 140 - 212 Â°F    | Injection Molding |
| Drying Temperature        | 120 Â°C          | 248 Â°F          | Injection Molding |
| Dry Time                  | 4.00 - 5.00 hour | 4.00 - 5.00 hour | Injection Molding |

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