

## LG Chemical LUMID GP2430B(W) PA66+GF43%, General Purpose

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 50% Glass Fiber Filled

### Material Notes:

Feature: Injection Molding, PA66+GF43%, General Purpose  
Application: Automotive (Air Intake Manifold)  
CAS No. 25038-54-4 and 65997-17-3  
Information provided by LG Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LG-Chemical-LUMID-GP2430BW-PA66GF43-General-Purpose.php](http://www.lookpolymers.com/polymer_LG-Chemical-LUMID-GP2430BW-PA66GF43-General-Purpose.php)

| Physical Properties         | Metric                                                | English                                               | Comments          |
|-----------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------|
| Specific Gravity            | 1.50 g/cc                                             | 1.50 g/cc                                             | ASTM D792         |
| Water Absorption            | 0.60 %<br>@Temperature 23.0<br>Â°C,<br>Time 86400 sec | 0.60 %<br>@Temperature 73.4<br>Â°F,<br>Time 24.0 hour | ASTM D570         |
| Maximum Moisture Content    | 0.90                                                  | 0.90                                                  | Injection Molding |
| Linear Mold Shrinkage, Flow | 0.0030 - 0.0070 cm/cm<br>@Thickness 3.20 mm           | 0.0030 - 0.0070 in/in<br>@Thickness 0.126 in          | ASTM D955         |

| Mechanical Properties   | Metric                                                   | English                                                       | Comments             |
|-------------------------|----------------------------------------------------------|---------------------------------------------------------------|----------------------|
| Hardness, Rockwell R    | 122                                                      | 122                                                           | ASTM D785            |
| Tensile Strength, Yield | 216 MPa<br>@Thickness 3.20 mm                            | 31300 psi<br>@Thickness 0.126 in                              | 5mm/min; ASTM D638   |
| Elongation at Break     | 2.0 %<br>@Thickness 3.20 mm                              | 2.0 %<br>@Thickness 0.126 in                                  | 5mm/min; ASTM D638   |
| Flexural Yield Strength | 304 MPa<br>@Thickness 3.20 mm                            | 44100 psi<br>@Thickness 0.126 in                              | 1.3mm/min; ASTM D790 |
| Flexural Modulus        | 12.7 GPa<br>@Thickness 3.20 mm                           | 1850 ksi<br>@Thickness 0.126 in                               | 1.3mm/min; ASTM D790 |
| Izod Impact, Notched    | 1.37 J/cm<br>@Thickness 3.20 mm,<br>Temperature 23.0 Â°C | 2.57 ft-lb/in<br>@Thickness 0.126 in,<br>Temperature 73.4 Â°F | ASTM D256            |

| Thermal Properties            | Metric         | English          | Comments  |
|-------------------------------|----------------|------------------|-----------|
| CTE, linear, Parallel to Flow | 30.0 Âµm/m-Â°C | 16.7 Âµin/in-Â°F | ASTM D696 |

| Melting Point<br>Thermal Properties            | 260 Â°C<br>Metric                | 500 Â°F<br>English                | ASTM D3418<br>Comments |
|------------------------------------------------|----------------------------------|-----------------------------------|------------------------|
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 260 Â°C<br>@Thickness 6.40 mm    | 500 Â°F<br>@Thickness 0.252 in    | Unannealed; ASTM D648  |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 255 Â°C<br>@Thickness 6.40 mm    | 491 Â°F<br>@Thickness 0.252 in    | Unannealed; ASTM D648  |
| UL RTI, Electrical                             | 120 Â°C<br>@Thickness >=0.750 mm | 248 Â°F<br>@Thickness >=0.0295 in |                        |
|                                                | 120 Â°C<br>@Thickness >=1.50 mm  | 248 Â°F<br>@Thickness >=0.0591 in |                        |
|                                                | 120 Â°C<br>@Thickness >=3.00 mm  | 248 Â°F<br>@Thickness >=0.118 in  |                        |
| UL RTI, Mechanical with Impact                 | 110 Â°C<br>@Thickness >=3.00 mm  | 230 Â°F<br>@Thickness >=0.118 in  |                        |
|                                                | 110 Â°C<br>@Thickness >=1.50 mm  | 230 Â°F<br>@Thickness >=0.0591 in |                        |
|                                                | 110 Â°C<br>@Thickness >=0.750 mm | 230 Â°F<br>@Thickness >=0.0295 in |                        |
| UL RTI, Mechanical without Impact              | 120 Â°C<br>@Thickness >=3.00 mm  | 248 Â°F<br>@Thickness >=0.118 in  |                        |
|                                                | 120 Â°C<br>@Thickness >=1.50 mm  | 248 Â°F<br>@Thickness >=0.0591 in |                        |
|                                                | 120 Â°C<br>@Thickness >=0.750 mm | 248 Â°F<br>@Thickness >=0.0295 in |                        |
| Flammability, UL94                             | HB<br>@Thickness >=3.00 mm       | HB<br>@Thickness >=0.118 in       |                        |
|                                                | HB<br>@Thickness >=1.50 mm       | HB<br>@Thickness >=0.0591 in      |                        |
|                                                | HB                               | HB                                |                        |

| Thermal Properties | Metric<br>@Thickness >=0.750<br>mm | English<br>@Thickness >=0.0295<br>in | Comments |
|--------------------|------------------------------------|--------------------------------------|----------|
|--------------------|------------------------------------|--------------------------------------|----------|

| Electrical Properties                | Metric                                  | English                                  | Comments  |
|--------------------------------------|-----------------------------------------|------------------------------------------|-----------|
| Volume Resistivity                   | 1.00e+14 ohm-cm                         | 1.00e+14 ohm-cm                          | ASTM D257 |
| Dielectric Constant                  | 4.0<br>@Frequency 1.00e+6<br>Hz         | 4.0<br>@Frequency 1.00e+6<br>Hz          | ASTM D150 |
| Dielectric Strength                  | 25.0 kV/mm<br>@Thickness 1.00 mm        | 635 kV/in<br>@Thickness 0.0394 in        | ASTM D149 |
| Hot Wire Ignition, HWI               | 15 - 30 sec<br>@Thickness >=0.750<br>mm | 15 - 30 sec<br>@Thickness >=0.0295<br>in |           |
|                                      | 15 - 30 sec<br>@Thickness >=1.50 mm     | 15 - 30 sec<br>@Thickness >=0.0591<br>in |           |
|                                      | 15 - 30 sec<br>@Thickness >=3.00 mm     | 15 - 30 sec<br>@Thickness >=0.118 in     |           |
| High Amp Arc Ignition, HAI           | >= 120 arcs<br>@Thickness 0.750 mm      | >= 120 arcs<br>@Thickness 0.0295 in      |           |
|                                      | >= 120 arcs<br>@Thickness 1.50 mm       | >= 120 arcs<br>@Thickness 0.0591 in      |           |
|                                      | >= 120 arcs<br>@Thickness 3.00 mm       | >= 120 arcs<br>@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   | 260 - 270 Â°C  | 500 - 518 Â°F | Injection Molding |
| Middle Barrel Temperature | 270 - 285 Â°C  | 518 - 545 Â°F | Injection Molding |
| Front Barrel Temperature  | 270 - 290 Â°C  | 518 - 554 Â°F | Injection Molding |
| Nozzle Temperature        | 270 - 295 Â°C  | 518 - 563 Â°F | Injection Molding |
| Melt Temperature          | 270 - 295 Â°C  | 518 - 563 Â°F | Injection Molding |
| Mold Temperature          | 80.0 - 110 Â°C | 176 - 230 Â°F | Injection Molding |

| Processing Properties | Metric           | English          | Comments          |
|-----------------------|------------------|------------------|-------------------|
| Drying Temperature    | 80.0 - 100 Å°C   | 176 - 212 Å°F    | Injection Molding |
| Dry Time              | 4.00 - 5.00 hour | 4.00 - 5.00 hour | Injection Molding |
| Back Pressure         | 29.4 - 58.8 MPa  | 4260 - 8530 psi  | Injection Molding |
| Screw Speed           | 30 - 60 rpm      | 30 - 60 rpm      | Injection Molding |

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