

## LG Chemical Lupoy 1300-10 Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Description: LUPOY PC 1300-10 resin is designed for extrusion and injection molding products. It exhibits an excellent physical property balance of heat resistance, transparency and impact strength. Main Characteristics: High viscosity, No UV absorbers and No mold release agent. Applications: Compounds, Small appliances and Packaging applications. CAS: 103598-77-2. Information provided by LG Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LG-Chemical-Lupoy-1300-10-Polycarbonate-Resin.php](http://www.lookpolymers.com/polymer_LG-Chemical-Lupoy-1300-10-Polycarbonate-Resin.php)

| Physical Properties         | Metric                                      | English                                     | Comments                       |
|-----------------------------|---|---|--------------------------------|
| Specific Gravity            | 1.20 g/cc                                   | 1.20 g/cc                                   | ASTM D792                      |
| Water Absorption            | 0.32 %                                      | 0.32 %                                      | equilibrium, 50% RH; ASTM D570 |
|                             | @Temperature 23.0<br>Â°C                    | @Temperature 73.4 Â°F                       |                                |
|                             | 0.15 %                                      | 0.15 %                                      | ASTM D570                      |
|                             | @Temperature 23.0<br>Â°C,<br>Time 86400 sec | @Temperature 73.4<br>Â°F,<br>Time 24.0 hour |                                |
| Linear Mold Shrinkage, Flow | 0.00050 - 0.00070<br>cm/cm                  | 0.00050 - 0.00070 in/in                     | ASTM D955                      |
| Melt Flow                   | 10 g/10 min                                 | 10 g/10 min                                 | ASTM D1238                     |
|                             | @Load 1.20 kg,<br>Temperature 300 Â°C       | @Load 2.65 lb,<br>Temperature 572 Â°F       |                                |

| Mechanical Properties      | Metric   | English   | Comments            |
|----------------------------|----------|-----------|---------------------|
| Hardness, Rockwell M       | 73       | 73        | ASTM D785           |
| Hardness, Rockwell R       | 118      | 118       | ASTM D785           |
| Tensile Strength, Ultimate | 71.0 MPa | 10300 psi | ASTM D638           |
| Tensile Strength, Yield    | 60.0 MPa | 8700 psi  | 50mm/min; ASTM D638 |
| Elongation at Break        | 150 %    | 150 %     | ASTM D638           |
| Elongation at Yield        | 6.0 %    | 6.0 %     | ASTM D638           |
| Tensile Modulus            | 2.41 GPa | 350 ksi   | ASTM D638           |
| Flexural Yield Strength    | 96.0 MPa | 13900 psi | ASTM D790           |
| Flexural Modulus           | 2.41 GPa | 350 ksi   | ASTM D790           |

| Mechanical Properties   | 9.074 J/cm<br>Metric                        | 17.00 ft-lb/in<br>English                    | Comments                                   |
|-------------------------|---|--|--|
| Izod Impact, Notched    | @Thickness 3.20 mm,<br>Temperature 23.0 Â°C | @Thickness 0.126 in,<br>Temperature 73.4 Â°F | U 25 mm notch; ASTM D256                   |
| Izod Impact, Unnotched  | NB<br><br>@Temperature 23.0<br>Â°C          | NB<br><br>@Temperature 73.4 Â°F              | ASTM D256                                  |
| Dart Drop, Total Energy | 87.0 J<br><br>@Thickness 3.20 mm            | 64.2 ft-lb<br><br>@Thickness 0.126 in        | 203m/min; ASTM D3763                       |
| Abrasion                | 45<br><br>@Load 1.00 kg                     | 45<br><br>@Load 2.20 lb                      | [%], CS-10 F wheel, 500 cycles; ASTM D1044 |

| Thermal Properties                             | Metric   | English   | Comments               |
|--|--|---|------------------------|
| CTE, linear                                    | 68.0 Âµm/m-Â°C<br><br>@Temperature -40.0 -<br>82.0 Â°C | 37.8 Âµin/in-Â°F<br><br>@Temperature -40.0 -<br>180 Â°F | ASTM D696              |
| Hot Ball Pressure Test                         | >= 125 Â°C   | >= 257 Â°F  | IEC 598-1              |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 144 Â°C<br><br>@Thickness 4.00 mm                      | 291 Â°F<br><br>@Thickness 0.157 in                      | Annealed; ASTM D648    |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 128 Â°C<br><br>@Thickness 4.00 mm                      | 262 Â°F<br><br>@Thickness 0.157 in                      | Unannealed; ASTM D648  |
|  | 141 Â°C<br><br>@Thickness 4.00 mm                      | 286 Â°F<br><br>@Thickness 0.157 in                      | Annealed; ASTM D648    |
| Vicat Softening Point                          | 149 Â°C<br><br>@Load 5.10 kg                           | 300 Â°F<br><br>@Load 11.2 lb                            | 50Â°C/hr; ASTM D1525   |
| Softening Point                                | 150 - 200 Â°C  | 302 - 392 Â°F   | melting point per MSDS |
| Flammability, UL94                             | HB<br><br>@Thickness 3.00 mm                           | HB<br><br>@Thickness 0.118 in                           | ASTM D635              |
|  | V-2<br><br>@Thickness 0.500 mm                         | V-2<br><br>@Thickness 0.0197 in                         | ASTM D635              |
|  | V-2<br><br>@Thickness 1.60 mm                          | V-2<br><br>@Thickness 0.0630 in                         | ASTM D635              |
|  | V-2<br><br>@Thickness 2.50 - 2.70                      | V-2<br><br>@Thickness 0.0984 -                          | ASTM D635              |

| Thermal Properties | mm<br>Metric                                    | 0.106 in<br>English                                    | Comments    |
|--------------------|---|--|-------------|
| Flash Point        | >= 450 Å°C                                      | >= 842 Å°F   |             |
| Oxygen Index       | 26 %  | 26 %   | ASTM D2863  |
| Glow Wire Test     | 850 Å°C<br>@Thickness 2.00 mm,<br>Time 5.00 sec | 1560 Å°F<br>@Thickness 0.0787 in,<br>Time 0.00139 hour | IEC 695-2-1 |

| Optical Properties    | Metric       | English      | Comments   |
|-----------------------|--------------|--------------|------------|
| Refractive Index      | 1.586        | 1.586        | ASTM D542  |
| Haze                  | 0.70 - 1.5 % | 0.70 - 1.5 % | ASTM D1003 |
| Transmission, Visible | 89 %         | 89 %         | ASTM D1003 |

| Electrical Properties      | Metric                       | English                       | Comments  |
|----------------------------|------------------------------|-------------------------------|-----------|
| Volume Resistivity         | 2.00e+17 ohm-cm              | 2.00e+17 ohm-cm               | ASTM D257 |
| Dielectric Constant        | 3.0<br>@Frequency 60.0 Hz    | 3.0<br>@Frequency 60.0 Hz     | ASTM D150 |
| Dielectric Strength        | 17.0 kV/mm                   | 432 kV/in                     | ASTM D149 |
| Dissipation Factor         | 0.0010<br>@Frequency 60.0 Hz | 0.0010<br>@Frequency 60.0 Hz  | ASTM D150 |
| Comparative Tracking Index | 250 V<br>@Thickness 2.00 mm  | 250 V<br>@Thickness 0.0787 in | IEC 112   |

| Descriptive Properties    | Value     | Comments |
|---------------------------|-----------|----------|
| Autoignition Temperature  | >450Å°C   |          |
| Average Extent of Burning | ASTM D635 |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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