## RedEye On Demand Clear PolyJet<sup>™</sup> FC720 for Rapid Prototyping

Category : Polymer, Rapid Prototyping Polymer, Thermoplastic

## Material Notes:

Clear PolyJet Resin (FC720) is a photopolymer resin designed for precise jetting in super fine layers by PolyJet<sup>™</sup> Technology, often used in rapid prototyping. Our Clear PolyJet Resin material offers the best surface finish. These parts are built at a layer thickness of 16 microns (0.0006 inch or 0.01524mm) and can produce parts with fine feature detail. ApplicationsClear PolyJet Resin (FC720) works well for prototypes that require smooth surface finish and high feature detail. Parts from this material can absorb paint or dye, be chrome plated, used as a master for silicone molds and have been used in investment casting. Clear PolyJet parts will have a semi-translucent appearance, which can be enhanced with sanding and buffing. Typical industries included toys, foot wear, architecture and any industry where feature detail and surface finish our required.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_RedEye-On-Demand-Clear-PolyJet-FC720-for-Rapid-Prototyping.php

| Physical Properties | Metric     | English        | Comments  |
|---------------------|------------|----------------|-----------|
| Base Resin Density  | 1.092 g/cc | 0.03945 lb/in³ |           |
| Ash                 | <= 0.010 % | <= 0.010 %     | at 1000°C |

| Mechanical Properties   | Metric             | English                | Comments  |
|-------------------------|--------------------|------------------------|-----------|
| Hardness, Rockwell M    | 81                 | 81                     |           |
| Tensile Strength, Yield | 42.3 MPa           | 6140 psi               | ASTM D638 |
| Elongation at Break     | 15 - 25 %          | 15 - 25 %              | ASTM D638 |
| Tensile Modulus         | 2.00 GPa           | 290 ksi                | ASTM D638 |
| Flexural Yield Strength | 70.6 MPa           | 10200 psi              | ASTM D790 |
| Flexural Modulus        | 1.978 GPa          | 286.9 ksi              | ASTM D790 |
| Compressive Strength    | 69.4 MPa           | 10100 psi              | ASTM D695 |
| Izod Impact, Notched    | 0.250 - 0.380 J/cm | 0.468 - 0.712 ft-lb/in | ASTM D256 |

| Thermal Properties | Metric                         | English                        | Comments |
|--------------------|--------------------------------|--------------------------------|----------|
|                    | 29.9 - 39.3 µm/m-°C            | 16.6 - 21.8 µin/in-°F          |          |
| CTE, linear        | @Temperature 30.0 -<br>35.0 °C | @Temperature 86.0 -<br>95.0 °F |          |
|                    | 51.3 - 70.3 µm/m-°C            | 28.5 - 39.1 µin/in-°F          |          |
|                    | @Temperature 40.0 -<br>70.0 °C | @Temperature 104 -<br>158 °F   |          |



| 95.9 - 112.9 μm/m-°C<br>Metric | 53.3 62.72 µin/in-°F<br>English  | Comments  |
|--------------------------------|--|---|
| @Temperature 75.0 -<br>90.0 °C | @Temperature 167 -<br>194 °F   |   |
| 118.2 - 126.2 µm/m-°С          | 65.67 - 70.11 µin/in-°F  |   |
| @Temperature 95.0 -<br>110 ℃   | @Temperature 203 -<br>230 °F   |   |
|                                | @Temperature 75.0 -<br>90.0 °C<br>118.2 - 126.2 μm/m-°C<br>@Temperature 95.0 - | Metric English   @Temperature 75.0 -<br>90.0 °C @Temperature 167 -<br>194 °F   118.2 - 126.2 μm/m-°C 65.67 - 70.11 μin/in-°F   @Temperature 95.0 - @Temperature 203 - |

| Optical Properties    | Metric | English | Comments                        |
|-----------------------|--------|---------|---------------------------------|
| Transmission, Visible | 90 %   | 90 %    | clear; thickness not quantified |

## Contact Songhan Plastic Technology Co.,Ltd.

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