

## SABIC Innovative Plastics LNP THERMOCOMP DF002ER PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

LNP THERMOCOMP\* DF002ER is a compound based on Polycarbonate resin containing 10% Glass Fiber. Added features of this material include: Easy Molding. Mold Release

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-DF002ER-PC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-DF002ER-PC.php)

| Physical Properties               | Metric          | English                    | Comments                  |
|-----------------------------------|-----------------|----------------------------|---------------------------|
| Density                           | 1.27 g/cc       | 0.0459 lb/in <sup>3</sup>  | ISO 1183                  |
|                                   | 1.275 g/cc      | 0.04606 lb/in <sup>3</sup> | ASTM D792                 |
| Moisture Absorption               | 0.150 %         | 0.150 %                    | 50% RH, 24 hrs; ASTM D570 |
| Linear Mold Shrinkage, Flow       | 0.0040 cm/cm    | 0.0040 in/in               | ASTM D955                 |
|                                   | @Time 86400 sec | @Time 24.0 hour            |                           |
|                                   | 0.0043 cm/cm    | 0.0043 in/in               | ISO 294                   |
|                                   | @Time 86400 sec | @Time 24.0 hour            |                           |
| Linear Mold Shrinkage, Transverse | 0.0050 cm/cm    | 0.0050 in/in               | ASTM D955                 |
|                                   | @Time 86400 sec | @Time 24.0 hour            |                           |
|                                   | 0.0051 cm/cm    | 0.0051 in/in               | ISO 294                   |
|                                   | @Time 86400 sec | @Time 24.0 hour            |                           |

| Mechanical Properties     | Metric   | English   | Comments             |
|---------------------------|----------|-----------|----------------------|
| Tensile Strength at Break | 83.0 MPa | 12000 psi | ASTM D638            |
|                           | 84.0 MPa | 12200 psi | ISO 527              |
| Elongation at Break       | 3.6 %    | 3.6 %     | ISO 527              |
|                           | 3.8 %    | 3.8 %     | ASTM D638            |
| Tensile Modulus           | 4.10 GPa | 595 ksi   | 1 mm/min; ISO 527    |
|                           | 4.17 GPa | 605 ksi   | 50 mm/min; ASTM D638 |
| Flexural Strength         | 117 MPa  | 17000 psi | ISO 178              |
|                           | 149 MPa  | 21600 psi | ASTM D790            |
| Flexural Modulus          | 3.92 GPa | 569 ksi   | ISO 178              |

| Mechanical Properties        | 4.28 GPa<br>Metric | 621 ksi<br>English | ASTM D790<br>Comments                            |
|------------------------------|--------------------|--------------------|--------------------------------------------------|
| Izod Impact, Notched         | 0.970 J/cm         | 1.82 ft-lb/in      | ASTM D256                                        |
| Izod Impact, Unnotched       | 9.29 J/cm          | 17.4 ft-lb/in      | ASTM D4812                                       |
| Izod Impact, Notched (ISO)   | 8.00 kJ/mÂ²        | 3.81 ft-lb/inÂ²    | 80*10*4; ISO 180/1A                              |
| Izod Impact, Unnotched (ISO) | 61.0 kJ/mÂ²        | 29.0 ft-lb/inÂ²    | 80*10*4; ISO 180/1U                              |
| Dart Drop, Total Energy      | 13.0 J             | 9.59 ft-lb         | Instrumented Impact Energy @ peak;<br>ASTM D3763 |
| Impact Test                  | 9.00 J             | 6.64 ft-lb         | Multiaxial Impact; ISO 6603                      |

| Thermal Properties                          | Metric                        | English                      | Comments                         |
|---------------------------------------------|-------------------------------|------------------------------|----------------------------------|
| CTE, linear, Parallel to Flow               | 38.1 Âµm/m-Â°C                | 21.2 Âµin/in-Â°F             | ASTM E 831                       |
|                                             | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F |                                  |
|                                             | 38.2 Âµm/m-Â°C                | 21.2 Âµin/in-Â°F             | ISO 11359-2                      |
|                                             | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F |                                  |
| CTE, linear, Transverse to Flow             | 53.4 Âµm/m-Â°C                | 29.7 Âµin/in-Â°F             | ASTM E 831                       |
|                                             | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F |                                  |
|                                             | 53.5 Âµm/m-Â°C                | 29.7 Âµin/in-Â°F             | ISO 11359-2                      |
|                                             | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F |                                  |
| Deflection Temperature at 0.46 MPa (66 psi) | 141 Â°C                       | 286 Â°F                      | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
|                                             | 141 Â°C                       | 286 Â°F                      | unannealed; ASTM D648            |
|                                             | @Thickness 3.20 mm            | @Thickness 0.126 in          |                                  |
| Deflection Temperature at 1.8 MPa (264 psi) | 137 Â°C                       | 279 Â°F                      | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|                                             | 136 Â°C                       | 277 Â°F                      | unannealed; ASTM D648            |
|                                             | @Thickness 3.20 mm            | @Thickness 0.126 in          |                                  |

## Contact Songhan Plastic Technology Co.,Ltd.

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