

## SABIC Innovative Plastics LNP THERMOCOMP MF004AS PP

Category : Polymer , Thermoplastic , Polypropylene (PP)

### Material Notes:

LNP THERMOCOMP\* MF004AS is a compound based on Polypropylene resin containing 20% Glass Fiber. Added features of this material include: Heat Stabilized.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-MF004AS-PP.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-MF004AS-PP.php)

| Physical Properties               | Metric                | English                    | Comments                  |
|-----------------------------------|-----------------------|----------------------------|---------------------------|
| Density                           | 1.03 g/cc             | 0.0372 lb/in <sup>3</sup>  | ISO 1183                  |
|                                   | 1.034 g/cc            | 0.03736 lb/in <sup>3</sup> | ASTM D792                 |
| Moisture Absorption               | 0.0300 %              | 0.0300 %                   | 50% RH, 24 hrs; ASTM D570 |
| Linear Mold Shrinkage, Flow       | 0.0040 - 0.0070 cm/cm | 0.0040 - 0.0070 in/in      | ASTM D955                 |
|                                   | @Time 86400 sec       | @Time 24.0 hour            |                           |
|                                   | 0.0072 cm/cm          | 0.0072 in/in               | ISO 294                   |
|                                   | @Time 86400 sec       | @Time 24.0 hour            |                           |
| Linear Mold Shrinkage, Transverse | 0.0090 - 0.010 cm/cm  | 0.0090 - 0.010 in/in       | ASTM D955                 |
|                                   | @Time 86400 sec       | @Time 24.0 hour            |                           |
|                                   | 0.0095 cm/cm          | 0.0095 in/in               | ISO 294                   |
|                                   | @Time 86400 sec       | @Time 24.0 hour            |                           |

| Mechanical Properties     | Metric   | English   | Comments             |
|---------------------------|----------|-----------|----------------------|
| Tensile Strength at Break | 63.0 MPa | 9140 psi  | ASTM D638            |
|                           | 65.0 MPa | 9430 psi  | ISO 527              |
| Elongation at Break       | 2.2 %    | 2.2 %     | ISO 527              |
|                           | 2.3 %    | 2.3 %     | ASTM D638            |
| Tensile Modulus           | 4.55 GPa | 660 ksi   | 50 mm/min; ASTM D638 |
|                           | 5.10 GPa | 740 ksi   | 1 mm/min; ISO 527    |
| Flexural Strength         | 92.0 MPa | 13300 psi | ASTM D790            |
|                           | 104 MPa  | 15100 psi | ISO 178              |
| Flexural Modulus          | 4.34 GPa | 629 ksi   | ASTM D790            |

| Mechanical Properties        | 5.60 GPa<br>Metric     | 812 ksi<br>English         | ISO 178<br>Comments                              |
|------------------------------|------------------------|----------------------------|--|
| Izod Impact, Notched         | 0.480 J/cm             | 0.899 ft-lb/in             | ASTM D256  |
| Izod Impact, Unnotched       | 3.25 J/cm              | 6.09 ft-lb/in              | ASTM D4812                                       |
| Izod Impact, Notched (ISO)   | 5.00 kJ/m <sup>2</sup> | 2.38 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1A                              |
| Izod Impact, Unnotched (ISO) | 20.0 kJ/m <sup>2</sup> | 9.52 ft-lb/in <sup>2</sup> | 80*10*4; ISO 180/1U                              |
| Dart Drop, Total Energy      | 8.00 J                 | 5.90 ft-lb                 | Instrumented Impact Energy @ peak;<br>ASTM D3763 |
| Impact Test                  | 1.00 J                 | 0.738 ft-lb                | Multiaxial Impact; ISO 6603                      |

| Thermal Properties                             | Metric                           | English                         | Comments                         |
|--|----------------------------------|---------------------------------|----------------------------------|
| CTE, linear, Transverse to Flow                | 74.5 Åµm/m-Å°C                   | 41.4 Åµin/in-Å°F                | ASTM E 831                       |
|  | @Temperature -40.0 -<br>40.0 Å°C | @Temperature -40.0 -<br>104 Å°F |                                  |
|  | 74.5 Åµm/m-Å°C                   | 41.4 Åµin/in-Å°F                | ISO 11359-2                      |
|  | @Temperature -40.0 -<br>40.0 Å°C | @Temperature -40.0 -<br>104 Å°F |                                  |
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 160 Å°C                          | 320 Å°F                         | unannealed; ASTM D648            |
|  | @Thickness 3.20 mm               | @Thickness 0.126 in             |                                  |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 145 Å°C                          | 293 Å°F                         | Flatw 80*10*4 sp=64mm; ISO 75/Af |
|  | 149 Å°C                          | 300 Å°F                         |                                  |
|  | @Thickness 3.20 mm               | @Thickness 0.126 in             | unannealed; ASTM D648            |
| Flammability, UL94                             | HB                               | HB                              | UL 94 by SABIC-IP                |
|  | @Thickness 0.750 mm              | @Thickness 0.0295 in            |                                  |

## Contact Songhan Plastic Technology Co.,Ltd.

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