

SABIC Innovative Plastics LNP THERMOCOMP WH0270B PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

Material Notes:

LNP THERMOCOMP* WH0270B is a compound based on Polybutylene Terephthalate resin containing High Specific Gravity Filler. Added features of this material include: High Specific Gravity.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-WH0270B-PBT.php

| Physical Properties | Metric | English | Comments |
|-----------------------------------|----------------------|---------------------------|------------------------------------|
| Density | 2.70 g/cc | 0.0975 lb/in ³ | ASTM D792 |
| | 2.70 g/cc | 0.0975 lb/in ³ | ISO 1183 |
| Moisture Absorption | 0.0700 % | 0.0700 % | 23 ^o C / 50% RH; ISO 62 |
| | 0.0900 % | 0.0900 % | 50% RH, 24 hrs; ASTM D570 |
| Linear Mold Shrinkage, Flow | 0.0080 - 0.010 cm/cm | 0.0080 - 0.010 in/in | ASTM D955 |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Transverse | 0.0080 - 0.010 cm/cm | 0.0080 - 0.010 in/in | ISO 294 |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Transverse | 0.010 - 0.012 cm/cm | 0.010 - 0.012 in/in | ASTM D955 |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Transverse | 0.010 - 0.012 cm/cm | 0.010 - 0.012 in/in | ISO 294 |
| | @Time 86400 sec | @Time 24.0 hour | |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|----------|-----------|----------------------|
| Tensile Strength at Break | 40.0 MPa | 5800 psi | ISO 527 |
| | 46.0 MPa | 6670 psi | ASTM D638 |
| Elongation at Break | 1.3 % | 1.3 % | ISO 527 |
| | 1.6 % | 1.6 % | ASTM D638 |
| Elongation at Yield | 1.3 % | 1.3 % | ISO 527 |
| Tensile Modulus | 7.50 GPa | 1090 ksi | 1 mm/min; ISO 527 |
| | 9.99 GPa | 1450 ksi | 50 mm/min; ASTM D638 |
| Flexural Strength | 74.0 MPa | 10700 psi | ISO 178 |

| Mechanical Properties | 81.0 MPa Metric | 11700 psi English | ASTM D790 Comments |
|------------------------------|------------------------|----------------------------|--|
| Flexural Modulus | 8.96 GPa | 1300 ksi | ASTM D790 |
| | 9.51 GPa | 1380 ksi | ISO 178 |
| Izod Impact, Notched | 0.320 J/cm | 0.599 ft-lb/in | ASTM D256 |
| Izod Impact, Unnotched | 1.44 J/cm | 2.70 ft-lb/in | ASTM D4812 |
| Izod Impact, Notched (ISO) | 5.00 kJ/m ² | 2.38 ft-lb/in ² | 80*10*4; ISO 180/1A |
| Izod Impact, Unnotched (ISO) | 9.00 kJ/m ² | 4.28 ft-lb/in ² | 80*10*4; ISO 180/1U |
| Dart Drop, Total Energy | 4.00 J | 2.95 ft-lb | Instrumented Impact Energy @ peak; ASTM D3763 |
| Impact Test | 1.00 J | 0.738 ft-lb | Multiaxial Impact; ISO 6603 |

| Thermal Properties | Metric | English | Comments |
|---|--|--|----------------------------------|
| CTE, linear, Parallel to Flow | 32.4 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 18.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ASTM E 831 |
| | @Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$ | @Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$ | |
| CTE, linear, Transverse to Flow | 33.9 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 18.8 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ISO 11359-2 |
| | @Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$ | @Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$ | |
| CTE, linear, Transverse to Flow | 46.8 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 26.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ASTM E 831 |
| | @Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$ | @Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$ | |
| Deflection Temperature at 1.8 MPa (264 psi) | 47.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ | 26.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ | ISO 11359-2 |
| | @Temperature -40.0 - 40.0 $\text{Å}^\circ\text{C}$ | @Temperature -40.0 - 104 $\text{Å}^\circ\text{F}$ | |
| Deflection Temperature at 1.8 MPa (264 psi) | 186 $\text{Å}^\circ\text{C}$ | 367 $\text{Å}^\circ\text{F}$ | Flatw 80*10*4 sp=64mm; ISO 75/Af |
| | 191 $\text{Å}^\circ\text{C}$ | 376 $\text{Å}^\circ\text{F}$ | |
| | @Thickness 3.20 mm | @Thickness 0.126 in | unannealed; ASTM D648 |

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