

SABIC Innovative Plastics LNP Colorcomp D10009 PC (Asia Pacific)

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

LNP* Colorcomp* D10009 is a compound based on Polycarbonate resin containing Flame Retardant, Unfilled Custom Color. Added features of this material include: Flame Retardant. This data was supplied by SABIC-IP for the Asia Pacific region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-Colorcomp-D10009-PC-Asia-Pacific.php

| Physical Properties | Metric | English | Comments |
|------------------------------------|-----------------------|---------------------------|--------------------|
| Density | 1.21 g/cc | 0.0437 lb/in ³ | ASTM D 792 |
| | 1.21 g/cc | 0.0437 lb/in ³ | ISO 1183 |
| Moisture Absorption at Equilibrium | 0.10 % | 0.10 % | 50% RH; ASTM D 570 |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Flow | 0.0078 cm/cm | 0.0078 in/in | ISO 294 |
| | @Time 86400 sec | @Time 24.0 hour | |
| | 0.0070 - 0.0090 cm/cm | 0.0070 - 0.0090 in/in | ASTM D 955 |
| | @Time 86400 sec | @Time 24.0 hour | |
| Linear Mold Shrinkage, Transverse | 0.0070 - 0.0090 cm/cm | 0.0070 - 0.0090 in/in | ASTM D 955 |
| | @Time 86400 sec | @Time 24.0 hour | |
| | 0.0083 cm/cm | 0.0083 in/in | ISO 294 |
| | @Time 86400 sec | @Time 24.0 hour | |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|----------|----------|-----------------------|
| Tensile Strength at Break | 48.0 MPa | 6960 psi | ASTM D 638 |
| | 51.0 MPa | 7400 psi | ISO 527 |
| Tensile Strength, Yield | 58.0 MPa | 8410 psi | ASTM D 638 |
| | 58.0 MPa | 8410 psi | ISO 527 |
| Elongation at Break | 48.5 % | 48.5 % | ASTM D 638 |
| | 90.6 % | 90.6 % | ISO 527 |
| Elongation at Yield | 5.7 % | 5.7 % | ISO 527 |
| | 5.8 % | 5.8 % | ASTM D 638 |
| Tensile Modulus | 2.06 GPa | 299 ksi | 50 mm/min; ASTM D 638 |

| Mechanical Properties | Metric 2.10 GPa | English 310 ksi | Comments 1 mm/min; ISO 527 |
|------------------------------|--|--|---|
| Flexural Strength | 73.0 MPa | 10600 psi | ISO 178 |
| Flexural Modulus | 2.06 GPa | 299 ksi | ASTM D 790 |
| | 2.10 GPa | 305 ksi | ISO 178 |
| Izod Impact, Notched | 1.54 J/cm @Temperature 23.0 °C | 2.89 ft-lb/in @Temperature 73.4 °F | ASTM D 256 |
| Izod Impact, Unnotched | 21.14 J/cm @Temperature 23.0 °C | 39.60 ft-lb/in @Temperature 73.4 °F | ASTM D 4812 |
| Izod Impact, Notched (ISO) | 15.0 kJ/m ² @Temperature 23.0 °C | 7.14 ft-lb/in ² @Temperature 73.4 °F | 80*10*4; ISO 180/1A |
| Izod Impact, Unnotched (ISO) | 191 kJ/m ² @Temperature 23.0 °C | 90.9 ft-lb/in ² @Temperature 73.4 °F | 80*10*4; ISO 180/1U |
| Impact Test | 37.0 J | 27.3 ft-lb | Multiaxial Impact; ISO 6603 |
| | 54.0 J @Temperature 23.0 °C | 39.8 ft-lb @Temperature 73.4 °F | Instrumented Impact Energy @ peak; ASTM D 3763 |

| Thermal Properties | Metric | English | Comments |
|--|---|--|----------------------------------|
| CTE, linear, Parallel to Flow | 70.0 µm/m-°C @Temperature -40.0 - 40.0 °C | 38.9 µin/in-°F @Temperature -40.0 - 104 °F | ISO 11359-2 |
| | 70.2 µm/m-°C @Temperature -40.0 - 40.0 °C | 39.0 µin/in-°F @Temperature -40.0 - 104 °F | ASTM E 831 |
| CTE, linear, Transverse to Flow | 72.0 µm/m-°C @Temperature -40.0 - 40.0 °C | 40.0 µin/in-°F @Temperature -40.0 - 104 °F | ASTM E 831 |
| | 72.0 µm/m-°C @Temperature -40.0 - 40.0 °C | 40.0 µin/in-°F @Temperature -40.0 - 104 °F | ISO 11359-2 |
| Deflection Temperature at 0.46 MPa (66 psi) | 136 °C | 277 °F | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
| | 137 °C @Thickness 3.20 mm | 279 °F @Thickness 0.126 in | unannealed; ASTM D 648 |

| Deflection Temperature at 1.8 MPa Thermal Properties (124 psi) | Metric 126 °C | English 259 °F | Comments 9+4 sp=64mm; ISO 75/Af |
|--|------------------------------|-------------------------------|------------------------------------|
| | 126 °C @Thickness 3.20 mm | 259 °F @Thickness 0.126 in | unannealed; ASTM D 648 |
| Flammability, UL94 | V-0 @Thickness 1.50 mm | V-0 @Thickness 0.0591 in | UL 94 by SABIC-IP |

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