

## SABIC Innovative Plastics LNP Lubricomp DFI12E PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

LNP\* Lubricomp\* DFI12E is a compound based on Polycarbonate resin containing Glass Fiber, Silicone. Added features of this material include: Internally Lubricated, Easy Molding. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-Lubricomp-DFI12E-PC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-Lubricomp-DFI12E-PC.php)

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ISO 1183
	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ASTM D 792
Moisture Absorption at Equilibrium	0.10 %	0.10 %	50% RH; ASTM D 570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0049 cm/cm	0.0049 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0050 cm/cm	0.0050 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0057 cm/cm	0.0057 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0060 cm/cm	0.0060 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	78.0 MPa	11300 psi	ASTM D 638
	79.0 MPa	11500 psi	ISO 527
Tensile Strength, Yield	80.0 MPa	11600 psi	ASTM D 638
	81.0 MPa	11700 psi	ISO 527
Elongation at Break	3.8 %	3.8 %	ISO 527
	4.3 %	4.3 %	ASTM D 638
Elongation at Yield	3.4 %	3.4 %	ISO 527
	3.5 %	3.5 %	ASTM D 638
Tensile Modulus	4.13 GPa	599 ksi	50 mm/min; ASTM D 638

Mechanical Properties	Metric 4.21 GPa	English 511 ksi	Comments 1 mm/min; ISO 527
Flexural Strength	125 MPa	18100 psi	ISO 178
Flexural Modulus	4.00 GPa	580 ksi	ISO 178
	4.13 GPa	599 ksi	ASTM D 790
Izod Impact, Notched	1.33 J/cm @Temperature 23.0 °C	2.49 ft-lb/in @Temperature 73.4 °F	ASTM D 256
Izod Impact, Unnotched	7.95 J/cm @Temperature 23.0 °C	14.9 ft-lb/in @Temperature 73.4 °F	ASTM D 4812
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	5.71 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	50.0 kJ/m <sup>2</sup> @Temperature 23.0 °C	23.8 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	80*10*4; ISO 180/1U
Impact Test	9.00 J	6.64 ft-lb	Multiaxial Impact; ISO 6603
	5.00 J @Temperature 23.0 °C	3.69 ft-lb @Temperature 73.4 °F	Instrumented Impact Energy @ peak; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	61.2 µm/m-°C @Temperature -40.0 - 40.0 °C	34.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	62.0 µm/m-°C @Temperature -40.0 - 40.0 °C	34.4 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
CTE, linear, Transverse to Flow	36.0 µm/m-°C @Temperature -40.0 - 40.0 °C	20.0 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	37.0 µm/m-°C @Temperature -40.0 - 40.0 °C	20.6 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	142 °C	288 °F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	142 °C @Thickness 3.20 mm	288 °F @Thickness 0.126 in	unannealed; ASTM D 648

Thermal Properties Deflection Temperature at 1.8 MPa (104 psi)	Metric 128 °C	English 270 °F	Comments 9.4 sp=64mm; ISO 75/Af
	136 °C @Thickness 3.20 mm	277 °F @Thickness 0.126 in	unannealed; ASTM D 648

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