

SABIC Innovative Plastics LNP Lubricomp QP003 PA 6/10

Category : Polymer , Thermoplastic , Nylon , Nylon 610

Material Notes:

LNP* Lubricomp* QP003 is a compound based on Nylon 6/10 resin containing PTFE, Silicone. Added features of this material include: Internally Lubricated. 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-QP003-PA-610.php

Physical Properties	Metric	English	Comments
Density	1.16 g/cc	0.0419 lb/in ³	ISO 1183
	1.17 g/cc	0.0423 lb/in ³	ASTM D 792
Moisture Absorption at Equilibrium	0.30 %	0.30 %	50% RH; ASTM D 570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.020 cm/cm	0.020 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.019 - 0.021 cm/cm	0.019 - 0.021 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.022 cm/cm	0.022 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.021 - 0.023 cm/cm	0.021 - 0.023 in/in	ASTM D 955
	@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	48.0 MPa	6960 psi	ASTM D 638
	51.0 MPa	7400 psi	ISO 527
Elongation at Break	11.9 %	11.9 %	ASTM D 638
	14 %	14 %	ISO 527
Elongation at Yield	13.8 %	13.8 %	ISO 527
	16.5 %	16.5 %	ASTM D 638
Tensile Modulus	2.06 GPa	299 ksi	50 mm/min; ASTM D 638

Mechanical Properties	Metric	English	Comments
	2.23 GPa	322 ksi	1 mm/min; ISO 527
Flexural Strength	70.0 MPa	10200 psi	ISO 178
Flexural Modulus	1.37 GPa	199 ksi	ASTM D 790
	2.00 GPa	290 ksi	ISO 178
Izod Impact, Notched	0.420 J/cm @Temperature 23.0 Â°C	0.787 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	8.33 J/cm @Temperature 23.0 Â°C	15.6 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	4.00 kJ/mÂ² @Temperature 23.0 Â°C	1.90 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	46.0 kJ/mÂ² @Temperature 23.0 Â°C	21.9 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U
Impact Test	15.0 J	11.1 ft-lb	Multiaxial Impact; ISO 6603
	3.00 J @Temperature 23.0 Â°C	2.21 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Energy @ peak; ASTM D 3763
Coefficient of Friction, Dynamic	0.19	0.19	ASTM D 3702 Modified
Coefficient of Friction, Static	0.15	0.15	ASTM D 3702 Modified
K (wear) Factor	6.04 x 10 ⁻⁸ mmÂ³/N-M	3.00 x 10 ⁻¹⁰ inÂ³- min/ft-lb-hr	Washer; ASTM D 3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	98.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	54.4 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	99.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	55.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
CTE, linear, Transverse to Flow	97.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	53.9 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2

Thermal Properties	97.2 Åmm/m-Å°C Metric	54.0 Åmm/in-Å°F English	Comments
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	ASTM E 831
Deflection Temperature at 0.46 MPa (66 psi)	165 Å°C	329 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	163 Å°C	325 Å°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	58.0 Å°C	136 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	57.0 Å°C	135 Å°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	

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