

LNP™ LUBRICOMP™ QCL349 compound

Polyamide 610
SABIC Innovative Plastics

Message:

LNP LUBRICOMP QCL349 is a compound based on Nylon 6/10 resin containing PTFE, Flame Retardant, Carbon Fiber. Added features of this material include: Internally Lubricated, Flame Retardant, Electrically Conductive.

Also known as: LNP* LUBRICOMP* Compound QCL-4034 FR-1

Product reorder name: QCL349

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Additive	PTFE lubricant		
Features	Conductivity		
	Lubrication		
	Flame retardancy		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.52	g/cm ³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.10	%	ASTM D955
Transverse flow: 24 hours	0.80	%	ASTM D955
Vertical flow direction: 24 hours	0.78	%	ISO 294-4
Flow direction: 24 hours	0.11	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	0.10	%	ASTM D570

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	16500	MPa	ASTM D638
--	15800	MPa	ISO 527-2/1
Tensile Strength			
Yield	169	MPa	ASTM D638
Yield	162	MPa	ISO 527-2
Fracture	159	MPa	ASTM D638
Fracture	162	MPa	ISO 527-2
Tensile Elongation			
Yield	1.8	%	ASTM D638
Yield	1.7	%	ISO 527-2
Fracture	1.9	%	ASTM D638
Fracture	1.7	%	ISO 527-2
Flexural Modulus			
--	13100	MPa	ASTM D790
--	13000	MPa	ISO 178

Flexural Strength			
--	241	MPa	ASTM D790
--	239	MPa	ISO 178
Coefficient of Friction			ASTM D3702 Modified
With self-dynamics	0.34		ASTM D3702 Modified
With Self-Static	0.28		ASTM D3702 Modified
Wear Factor - Washer	444	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	53	J/m	ASTM D256
23°C ²	5.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	530	J/m	ASTM D4812
23°C ³	33	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	4.20	J	ASTM D3763
--	2.00	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	218	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ⁴	218	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	200	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁵	198	°C	ISO 75-2/Af
Linear thermal expansion coefficient			
Flow: -40 to 40°C	5.6E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	5.7E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	2.0E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.9E-5	cm/cm/°C	ISO 11359-2
NOTE			
1.	50 mm/min		
2.	80*10*4		
3.	80*10*4		
4.	80*10*4 mm		
5.	80*10*4 mm		

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