

LNPT[™] LUBRICOMP[™] COMPOUND SP003

SL-4530

REGION ASIA

DESCRIPTION

LNP LUBRICOMP SP003 compound is based on Nylon 12 resin containing 15% PTFE/silicone. Added features of this grade include: Internally Lubricated, Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant
Fillers	Unreinforced, PTFE/Silicone
Polymer Types	Polyamide 12 (Nylon 12)
Processing Techniques	Injection Molding

INDUSTRY

Automotive
Consumer
Electrical and Electronics

SUB INDUSTRY

Automotive Under the Hood
Home Appliances, Commercial Appliance
Electronic Components, Mobile Phone - Computer - Tablets

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	37	MPa	ASTM D638
Tensile Stress, break	35	MPa	ASTM D638
Tensile Strain, yield	17.5	%	ASTM D638
Tensile Strain, break	23.9	%	ASTM D638
Tensile Modulus, 50 mm/min	1370	MPa	ASTM D638
Flexural Modulus	1370	MPa	ASTM D790
Tensile Stress, yield	38	MPa	ISO 527
Tensile Stress, break	36	MPa	ISO 527
Tensile Strain, yield	18.4	%	ISO 527
Tensile Strain, break	32.9	%	ISO 527
Tensile Modulus, 1 mm/min	1580	MPa	ISO 527
Flexural Stress	44	MPa	ISO 178
Flexural Modulus	1300	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	683	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	5	J	ASTM D3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	48	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	4	kJ/m ²	ISO 180/1A

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	150	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	146	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.13E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.12E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
PHYSICAL ⁽¹⁾			
Density	1.09	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.9 – 1.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1.8 – 2	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1.9	%	ISO 294
Wear Factor Washer	13	10 ⁻⁴ in ³ -min/ft ² -lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.23	-	ASTM D3702 Modified: Manual
Static COF	0.14	-	ASTM D3702 Modified: Manual
Density	1.09	g/cm ³	ISO 1183
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	225 – 240	°C	
Front - Zone 3 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	220 – 230	°C	
Rear - Zone 1 Temperature	215 – 225	°C	
Mold Temperature	70 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.