LNP™ LUBRICOMP™ COMPOUND KP004L

KL-4540 LE
REGION ASIA

DESCRIPTION

LNP LUBRICOMP KP004L is a compound based on Acetal Copolymer resin containing 20% PTFE/Silicone. Added features of this material include: Wear Resistant, Low Extractible.

TYPICAL PROPERTY VALUES

Revision 20181219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	47	MPa	ASTM D 638
Tensile Stress, break	46	MPa	ASTM D 638
Tensile Strain, yield	20.2	%	ASTM D 638
Tensile Strain, break	39.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D 638
Flexural Modulus	2060	MPa	ASTM D 790
Tensile Stress, yield	47	MPa	ISO 527
Tensile Stress, break	46	MPa	ISO 527
Tensile Strain, yield	19.2	%	ISO 527
Tensile Strain, break	34.3	%	ISO 527
Tensile Modulus, 1 mm/min	2270	MPa	ISO 527
Flexural Stress	119	MPa	ISO 178
Flexural Modulus	5400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	715	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	5	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	46	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	151	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	81	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.17E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.17E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.18E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.17E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	145	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	88	°C	ISO 75/Af
PHYSICAL			
Density	1.48	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	2.8 – 3	%	ASTM D 955

© 2018 Copyright by SABIC. All rights reserved

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	2.3 – 2.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	2.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	2.4	%	ISO 294
Wear Factor Washer	9	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.27	-	ASTM D 3702 Modified: Manual
Static COF	0.15	-	ASTM D 3702 Modified: Manual
Density	1.48	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Melt Temperature	200 – 215	°C	
Front - Zone 3 Temperature	210 – 220	°C	
Middle - Zone 2 Temperature	195 – 205	°C	
Rear - Zone 1 Temperature	175 – 190	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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 NONINFRINGEMENT 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.

© 2018 Copyright by SABIC. All rights reserved