LNP™ LUBRICOMP™ COMPOUND KP004AH

KL-4540 D HC

DESCRIPTION

LNP LUBRICOMP KP004AH compound is based on Acetal (POM) Homopolymer resin containing 20% PTFE/silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, Healthcare/Formula lock
Fillers	Unreinforced, PTFE/Silicone
Polymer Types	Acetal (POM) Homopolymer
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	50	MPa	ASTM D638
Tensile Strain, break	12.5	%	ASTM D638
Tensile Modulus, 50 mm/min	2200	MPa	ASTM D638
Flexural Stress	75	MPa	ASTM D790
Flexural Modulus	2410	MPa	ASTM D790
Tensile Stress, break	45	MPa	ISO 527
Tensile Strain, break	10.5	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress	77	MPa	ISO 178
Flexural Modulus	2800	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	427	J/m	ASTM D4812
Izod Impact, notched, 23°C	48	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	5	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	163	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	99	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	99	°C	ISO 75/Af
PHYSICAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.49	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	2.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	2.1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	2.14	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	2.05	%	ISO 294
Wear Factor Washer	9	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.25	-	ASTM D3702 Modified: Manual
Static COF	0.16	-	ASTM D3702 Modified: Manual
Density	1.49	g/cm³	ISO 1183
INJECTION MOLDING [3]			
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	

(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