LNP™ LUBRICOMP™ COMPOUND OCL36A

OCL-4036 HI FLOW
REGION EUROPE

DESCRIPTION

LNP LUBRICOMP OCL36A compound is based on Polyphenylene Sulfide (PPS) - branched resin containing 30% carbon fiber, 15% PTFE. Added features of this grade include: Electrically Conductive, Wear Resistant.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, Carbon fiber filled, High stiffness/Strength
Fillers	Carbon Fiber, PTFE
Polymer Types	Polyphenylene Sulfide, Branched (PPS, Branched)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20241031

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break, 5 mm/min	153	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.7	%	ISO 527
Tensile Modulus, 1 mm/min	25000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	261	MPa	ISO 178
Flexural Stress, break, 2 mm/min	217	MPa	ISO 178
Flexural Strain, break, 2 mm/min	1.3	%	ISO 178
Flexural Modulus, 2 mm/min	21200	MPa	ISO 178
Flexural Strain, break, 2 mm/min, 80°C	1.3	%	ISO 178
Flexural Strain, break, 2 mm/min, 120°C	2.3	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	2.4	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	2.4	%	ISO 178
Flexural Stress, yield, 2 mm/min, 80°C	212	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 120°C	118	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 150°C	94	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 200°C	66	MPa	ISO 178
Flexural Modulus, 2 mm/min, 80°C	20600	MPa	ISO 178
Flexural Modulus, 2 mm/min, 120°C	10200	MPa	ISO 178
Flexural Modulus, 2 mm/min, 150°C	7900	MPa	ISO 178
Flexural Modulus, 2 mm/min, 200°C	6100	MPa	ISO 178

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
IMPACT [1]			
Izod Impact, notched 80*10*3 -40°C	6	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	26	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -40°C	23	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
THERMAL [1]			
Specific Heat	1633	J/kg-K	ASTM E1269
CTE, 23°C to 60°C, flow	3.E-06	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.9E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	255	°C	ISO 75/Af
Thermal Conductivity	0.36	W/m-K	ASTM D5930
PHYSICAL [1]			
Mold Shrinkage, flow, 24 hrs [2]	0.19	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.95	%	ISO 294
Wear Factor Washer	19	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.39	-	ASTM D3702 Modified: Manual
Density	1.52	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.05	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
Melt Volume Rate, MVR at 315°C/5.0 kg	4 – 6	cm³/10 min	ISO 1133
ELECTRICAL [1]			
Surface Resistivity	1.E+01 – 1.E+03	Ω	ASTM D257
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 340	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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