LNP™ KONDUIT™ COMPOUND OX11315

DESCRIPTION

LNP KONDUIT OX11315 compound is based on Polyphenylene Sulfide (PPS) resin containing proprietary thermal filler. Added features of this grade include: Thermally Conductive, Electrically Insulative and Non-Brominated, Non-Chlorinated Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Non Cl/Br flame retardant, Thermally conductive/Electrically isolative, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Home Appliances
Electrical and Electronics	Mobile Phone - Computer - Tablets, Lighting
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20250606

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	41	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	0.2	%	ASTM D638
Tensile Modulus, 5 mm/min	30100	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	82	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	26500	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	54	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.3	%	ISO 527
Tensile Modulus, 1 mm/min	18380	MPa	ISO 527
Flexural Stress	84	MPa	ISO 178
Flexural Modulus, 2 mm/min	21380	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	54	J/m	ASTM D4812
Izod Impact, notched, 23°C	16	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	5	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	3	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	1	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	275	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	242	°C	ASTM D648

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Specific Heat	1.26	J/g-°C	ASTM C351
Thermal Conductivity through-plane, 10*10*3mm sample	3.5	W/m-K	ASTM E1461-07
Thermal Conductivity in-plane, 25*0.4mm disc	15	W/m-K	ASTM E1461-07
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	275	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	238	°C	ISO 75/Af
Relative Temp Index, Elec (2)	130	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	130	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	130	°C	UL 746B
PHYSICAL (1)			
Specific Gravity	1.78	-	ASTM D792
Density	1.76	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.01	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (3)	0.34	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	0.44	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62
ELECTRICAL (1)			
Comparative Tracking Index (4)	400	V	IEC 60112
Surface Resistivity	2.4E+15	Ω	ASTM D257
Dielectric Strength, 1.6 mm	1.2	kV/mm	IEC 60243-1
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E121562-101364448	-	-
UL Yellow Card Link 2	E207780-101069096	-	-
UL Recognized, 94-5VA Flame Class Rating	≥2.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥1	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING (5)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	320 – 350	°C	
Front - Zone 3 Temperature	315 – 345	°C	
Middle - Zone 2 Temperature	315 – 345	°C	
Rear - Zone 1 Temperature	315 – 345	°C	
Mold Temperature	110 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	
Shot to Cylinder Size	50 – 75	%	

(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) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
(3) 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.
(4) Value shown here is based on internal measurement.
(5) 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.

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