

# LNP™ KONDUIT™ COMPOUND OX11314

REGION ASIA

## DESCRIPTION

LNP KONDUIT OX11314 is a compound based on PPS resin containing mineral and glass fiber. Added features include thermally conductive, electrically isolative and non-brominated, non-chlorinated FR.

## TYPICAL PROPERTY VALUES

Revision 20200204

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 5 mm/min	44	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.6	%	ASTM D 638
Tensile Modulus, 5 mm/min	12160	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	47	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	11200	MPa	ASTM D 790
<b>IMPACT</b>			
Charpy Impact, unnotched, 23°C	5	kJ/m <sup>2</sup>	ISO 179/2C
Izod Impact, unnotched, 23°C	90	J/m	ASTM D 4812
Izod Impact, notched, 23°C	25	J/m	ASTM D 256
Charpy Impact, notched, 23°C	2	kJ/m <sup>2</sup>	ISO 179/2C
<b>THERMAL</b>			
HDT, 1.82 MPa, 6.4 mm, unannealed	191	°C	ASTM D 648
CTE, 40°C to 120°C, flow	2.6E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	5.1E-05	1/°C	ASTM E 831
Specific Heat	1.44	J/g·°C	ASTM C 351
Thermal Conductivity through-plane, 10*10*3mm sample	1	W/m-K	ASTM E 1461-07
Thermal Conductivity in-plane, 25*0.4mm disc	2.1	W/m-K	ASTM E 1461-07
Thermal Conductivity through-plane, 780*3mm discs	0.9	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, 780*3mm discs	2.22	W/m-K	ISO 22007-2
Relative Temp Index, Elec <sup>(1)</sup>	130	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(1)</sup>	130	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(1)</sup>	130	°C	UL 746B
<b>PHYSICAL</b>			
Density	1.9	g/cm <sup>3</sup>	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.18	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.24	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.1	%	SABIC method
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
<b>ELECTRICAL</b>			
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.0 mm	>4	kV/mm	ASTM D 149
Comparative Tracking Index <sup>(2)</sup>	600	V	IEC 60112
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥0.8	mm	UL 746A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
High Amp Arc Ignition (HAI), PLC 0	≥1	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 1	≥0.8	mm	UL 746A
<b>FLAME CHARACTERISTICS <sup>(1)</sup></b>			
UL Yellow Card Link	<a href="#">E207780-101043961</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.8	mm	UL 94
Glow Wire Ignitability Temperature, 1.0 mm	875	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	960	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	960	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.0 mm	960	°C	IEC 60695-2-12
<b>INJECTION MOLDING</b>			
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) 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.

(2) Value shown here is based on internal measurement.

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