

# LNP™ KONDUIT™ COMPOUND OX10324

OX10324

## DESCRIPTION

LNP KONDUIT OX10324 is a compound based on PPS resin containing glass fiber. Added features include thermal conductivity and non-brominated, non-chlorinated FR.

## TYPICAL PROPERTY VALUES

Revision 20200212

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 5 mm/min	49	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.6	%	ASTM D 638
Tensile Modulus, 5 mm/min	13500	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	75	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	15600	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	53	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.6	%	ISO 527
Tensile Modulus, 1 mm/min	14000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	73	MPa	ISO 178
Flexural Modulus, 2 mm/min	13500	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	70	J/m	ASTM D 4812
Izod Impact, notched, 23°C	24	J/m	ASTM D 256
Izod Impact, unnotched 80°10°4 +23°C	7	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	3	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm	275	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	258	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.32E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.5E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60°60°3mm plaque	1.3	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, 60°60°3mm plaque	18	W/m-K	ISO 22007-2
Thermal Conductivity through-plane, 10°10°3mm sample	3.5	W/m-K	ASTM E 1461-07
Thermal Conductivity in-plane, 25°0.4mm disc	15	W/m-K	ASTM E 1461-07
CTE, -30°C to 80°C, flow	1.3E-05	1/°C	ISO 11359-2
CTE, -30°C to 80°C, xflow	2.39E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	1.38E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	2.44E-05	1/°C	ISO 11359-2
Ball Pressure Test, 165°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	231	°C	ISO 75/Af
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>			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	0.1 – 0.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.1 – 0.3	%	ISO 294
Density	1.75	g/cm <sup>3</sup>	ISO 1183
Water Absorption, 23°C/24hrs	0.01	%	ISO 62-1
Water Absorption, 23°C/24hrs	0.01	%	SABIC method
<b>ELECTRICAL</b>			
Surface Resistivity	>2.5E+04	Ohm	ASTM D 257
Comparative Tracking Index (UL) {PLC}	4	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥1.2	mm	UL 746A
<b>FLAME CHARACTERISTICS <sup>(1)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101344589</a>	-	-
UL Yellow Card Link 2	<a href="#">E207780-100960980</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.2	mm	UL 94
Glow Wire Ignitability Temperature, 1.0 mm <sup>(2)</sup>	850	°C	IEC 60695-2-13
UV-light, water exposure/immersion	F1	-	UL 746C
<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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