LNP™ KONDUIT™ COMPOUND OTF2B

OTF-212-11

DESCRIPTION

LNP KONDUIT* OTF2B is a compound based on PPS - Linear resin containing 10% Glass Fiber, 55% Proprietary Thermal Filler. Added features of this material include: Thermally Conductive.

TYPICAL PROPERTY VALUES

Revision 20200108

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	83	MPa	ASTM D 638
Tensile Strain, break	0.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	16370	MPa	ASTM D 638
Flexural Stress	136	MPa	ASTM D 790
Flexural Modulus	15610	MPa	ASTM D 790
Tensile Stress, break	84	MPa	ISO 527
Tensile Strain, break	0.8	%	ISO 527
Tensile Modulus, 1 mm/min	16250	MPa	ISO 527
Flexural Stress	137	MPa	ISO 178
Flexural Modulus	14850	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	170	J/m	ASTM D 4812
Izod Impact, notched, 23°C	16	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	14	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
Thermal Conductivity	1.05	W/m-°C	ASTM E 1530
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	264	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	202	°C	ISO 75/Af
Relative Temp Index, Elec [1]	130	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	130	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	130	°C	UL 746B
PHYSICAL			
Density	2.208	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs	0.5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.45	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.71	%	ISO 294
Wear Factor Washer	4141	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.51	-	ASTM D 3702 Modified: Manual
Static COF	0.52	-	ASTM D 3702 Modified: Manual
Density	2.2	g/cm³	ISO 1183
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Hot-Wire Ignition (HWI), PLC 0	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 2	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	0	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	4	PLC Code	ASTM D 495
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E121562-101343423	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4	hrs	
Melt Temperature	315 – 320	°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) 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.

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