LNP™ KONDUIT™ COMPOUND OTF2B

OTF-212-11

DESCRIPTION

LNP KONDUIT OTF2B compound is based on Polyphenylene Sulfide (PPS) resin containing 10% glass fiber and 55% proprietary thermal fillers. Added features of this grade include: Thermally Conductive.

GENERAL INFORMATION	
Features	Thermally conductive/Electrically isolative
Fillers	Glass Fiber, Proprietary Filler
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, break	83	MPa	ASTM D638
Tensile Strain, break	0.9	%	ASTM D638
Tensile Modulus, 50 mm/min	16370	MPa	ASTM D638
Flexural Stress	136	MPa	ASTM D790
Flexural Modulus	15610	MPa	ASTM D790
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 [1]			
Izod Impact, unnotched, 23°C	170	J/m	ASTM D4812
Izod Impact, notched, 23°C	16	J/m	ASTM D256
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 [1]			
Thermal Conductivity	1.05	W/m-°C	ASTM E1530
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 [2]	130	°C	UL 746B

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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]			
Density	2.208	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.45	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.71	%	ISO 294
Wear Factor Washer	4141	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.51	-	ASTM D3702 Modified: Manual
Static COF	0.52	-	ASTM D3702 Modified: Manual
Density	2.2	g/cm³	ISO 1183
ELECTRICAL [1]			
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
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 D495
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101343423	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING [4]			
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) 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) 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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