

LNP™ KONDUIT™ COMPOUND PX11313

PX11313
REGION ASIA

DESCRIPTION

Thermally conductive mineral and glass fiber filled PA6, FR, compliant with ECO protocols, non-brominated, non-chlorinated

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	98	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.3	%	ASTM D 638
Tensile Modulus, 5 mm/min	13280	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	167	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	176	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	12500	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	110	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	13250	MPa	ISO 527
Flexural Stress, break, 2 mm/min	186	MPa	ISO 178
Flexural Modulus, 2 mm/min	13000	MPa	ISO 178
Impact Strength	2.4 – 27	kJ/m ²	ISO R179
IMPACT			
Izod Impact, unnotched, 23°C	326	J/m	ASTM D 4812
Izod Impact, notched, 23°C	30	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm	227	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	215	°C	ASTM D 648
CTE, 40°C to 120°C, flow	4.05E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	8.54E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 10*10*3mm sample	1.4	W/m-K	ASTM E 1461-07

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Thermal Conductivity in-plane, ?25*0.4mm disc	1.8	W/m-K	ASTM E 1461-07
Thermal Conductivity through-plane, ?80*3mm discs	0.9	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, ?80*3mm discs	1.9	W/m-K	ISO 22007-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	228	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	206	°C	ISO 75/Af
Relative Temp Index, Elec	130	°C	UL 746B
Relative Temp Index, Mech w/impact	105	°C	UL 746B
Relative Temp Index, Mech w/o impact	120	°C	UL 746B
PHYSICAL			
Density	1.79	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.42	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.58	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.04	%	ISO 62-1
Water Absorption, 23°C/24hrs	0.23	%	SABIC method
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
ELECTRICAL			
Surface Resistivity	> 1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.0 mm	> 10	kV/mm	ASTM D 149
Dielectric Constant (Dk), 1.1 GHz	4.84	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.0099	-	ASTM ES 7-83
Hot Wire Ignition {PLC}	3	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.8	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	1 – 3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	750	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	800	°C	IEC 60695-2-13
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	270 – 295	°C	
Front - Zone 3 Temperature	270 – 290	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 275	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Temperature	85 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	20 – 60	rpm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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