

LNP™ KONDUIT™ COMPOUND PX11311U

REGION EUROPE

DESCRIPTION

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

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break, 5 mm/min	105	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	12000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	170	MPa	ISO 178
Flexural Modulus, 2 mm/min	11000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	25	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	209	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.08E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.77E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60*60*3mm plaque	0.8	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, 60*60*3mm plaque	1.5	W/m-K	ISO 22007-2
CTE, -30°C to 80°C, flow	3.46E-05	1/°C	ISO 11359-2
CTE, -30°C to 80°C, xflow	6.04E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, flow	3.72E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	7.34E-05	1/°C	ISO 11359-2
Thermal Conductivity through-plane, ?80*3mm discs	1.1	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, ?80*3mm discs	1.3	W/m-K	ISO 22007-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Ball Pressure Test, 165°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/120	205	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	208	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Af
PHYSICAL			
Mold Shrinkage, flow, 24 hrs (5)	0.45	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.65	%	ISO 294
Density	1.74	g/cm ³	ISO 1183
Water Absorption, 23°C/24hrs	0.36	%	ISO 62-1
ELECTRICAL			
Surface Resistivity	1.E+16	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.6 mm	15.9	kV/mm	ASTM D 149
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
UL Compliant, 94V-0 Flame Class Rating (3)(4)	1	mm	UL 94 by SABIC-IP
UL Recognized, 94V-0 Flame Class Rating (3)	1	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	775	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.6 mm	775	°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	
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.

SABIC as referred to herein means any legal entity belonging to the group of companies headed by Saudi Arabia Basic Industries Corporation.