

LNP™ KONDUIT™ PX11311U compound

Polyamide 6

SABIC Innovative Plastics Europe

Message:

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

General Information			
UL YellowCard	E45329-101761336		
Filler / Reinforcement	Glass Fiber		
	Mineral		
Features	Bromine Free		
	Chlorine Free		
	Thermally Conductive		
Agency Ratings	EU Eco		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.74	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 24 hr	0.65	%	
Flow : 24 hr	0.45	%	
Water Absorption (23°C, 24 hr)	0.36	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	12000	MPa	ISO 527-2/1
Tensile Stress (Break)	105	MPa	ISO 527-2/5
Tensile Strain (Break)	1.7	%	ISO 527-2/5
Flexural Modulus ¹	11000	MPa	ISO 178
Flexural Stress	170	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength ² (23°C)	3.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ³ (23°C)	25	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	209	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁴	208	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 64.0 mm Span ⁵	185	°C	ISO 75-2/Af
Vicat Softening Temperature	205	°C	ISO 306/B120
Ball Pressure Test			IEC 60695-10-2

	Pass		
125°C	Pass		
165°C	Pass		
CLTE			
	3.1E-5		
Flow : -40 to 40°C	3.1E-5	cm/cm/°C	ASTM E831
Flow : -30 to 80°C	3.5E-5	cm/cm/°C	ISO 11359-2
Flow : 23 to 80°C	3.7E-5	cm/cm/°C	ISO 11359-2
	4.8E-5		
Transverse : -40 to 40°C	4.8E-5	cm/cm/°C	ASTM E831
Transverse : -30 to 80°C	6.0E-5	cm/cm/°C	ISO 11359-2
Transverse : 23 to 80°C	7.3E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity			ISO 22007-2
-- ⁶	0.80	W/m/K	
	1.1		
-- ⁷	1.1	W/m/K	
	1.3		
-- ⁸	1.3	W/m/K	
-- ⁹	1.5	W/m/K	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	ASTM D257
Dielectric Strength (1.60 mm, in Oil)	16	kV/mm	ASTM D149
Comparative Tracking Index (CTI)	PLC 0		UL 746
Comparative Tracking Index	600	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.00 mm	V-0		

V-0

1.00 mm, Testing by SABIC

V-0

Glow Wire Flammability Index (1.00 mm)

960

°C

IEC 60695-2-12

Glow Wire Ignition Temperature

IEC 60695-2-13

1.00 mm

800

°C

1.50 mm

775

°C

775

1.60 mm

775

°C

3.00 mm

800

°C

Injection

Nominal Value

Unit

Drying Temperature

80.0

°C

Drying Time

4.0

hr

Suggested Max Moisture

0.15 to 0.25

%

Rear Temperature

260 to 275

°C

Middle Temperature

270 to 290

°C

Front Temperature

270 to 290

°C

Processing (Melt) Temp

270 to 295

°C

Mold Temperature

85.0 to 100

°C

Back Pressure

0.200 to 0.300

MPa

Screw Speed

20 to 60

rpm

NOTE

1.

2.0 mm/min

2.

80*10*4

3.

80*10*4

4.

80*10*4 mm

5.

80*10*4 mm

6.

through-plane, 60*60*3mm plaque

7.

through-plane, ø80*3mm discs

8.

in-plane, ø80*3mm discs

9.

in-plane, 60*60*3mm plaque

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