

LNP™ KONDUIT™ PX13012 compound

Polyamide 6

SABIC Innovative Plastics Europe

Message:

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

General Information			
UL YellowCard	E45329-101769086		
Filler / Reinforcement	Mineral		
Features	Bromine Free		
	Chlorine Free		
	ECO Compliant		
	Thermally Conductive		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.68	g/cm ³	ISO 1183
Molding Shrinkage			
Flow ¹	0.70	%	Internal Method
Flow : 24 hr	0.55	%	ASTM D955, ISO 294-4
Across Flow : 24 hr	0.65	%	ASTM D955, ISO 294-4
Water Absorption (23°C, 24 hr)	0.23	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	10400	MPa	ASTM D638
--	13000	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	68.0	MPa	ASTM D638
Break	75.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ⁴	1.2	%	ASTM D638
Break	1.1	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁵	11800	MPa	ASTM D790
-- ⁶	12000	MPa	ISO 178
Flexural Stress			
--	105	MPa	ISO 178
Break, 50.0 mm Span ⁷	119	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			
23°C	15	J/m	ASTM D256
23°C ⁸	3.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	150	J/m	ASTM D4812
23°C ⁹	9.0	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	203	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	203	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	137	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	160	°C	ISO 75-2/Af
Ball Pressure Test (165°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	3.3E-5	cm/cm/°C	ASTM E831
Flow : -30 to 80°C	3.9E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	4.4E-5	cm/cm/°C	ASTM E831
Transverse : -30 to 80°C	5.5E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity			ISO 22007-2
-- ¹²	1.2	W/m/K	
-- ¹³	5.5	W/m/K	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	4.0E+14	ohms	ASTM D257
Dielectric Strength (1.60 mm, in Oil)	7.2	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 (0.800 mm)	V-0		UL 94
Glow Wire Flammability Index (0.800 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.800 mm	750	°C	
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.	Tensile Bar
2.	5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	1.3 mm/min
6.	2.0 mm/min
7.	1.3 mm/min
8.	80*10*4
9.	80*10*4
10.	80*10*4 mm
11.	80*10*4 mm
12.	through-plane, 60*60*3mm plaque
13.	in-plane, 60*60*3mm plaque

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