LNP™ KONDUIT™ PX11313 compound

Polyamide 6

SABIC Innovative Plastics Asia Pacific

Message:

Thermally conductive mineral filled PA6 FR compounding
Also known as: LNP* KONDUIT* Compound PX11313
Product reorder name: PX11313

General Information			
UL YellowCard	E207780-101282911		
Filler / Reinforcement	Mineral		
Features	Flame Retardant Thermally Conductive		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.79	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.42	%	
Across Flow : 24 hr	0.58	%	
Water Absorption			
23°C, 24 hr	0.23	%	Internal Method
23°C, 24 hr	0.040	%	ISO 62
Equilibrium, 23°C, 50% RH	0.040	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	13300	MPa	ASTM D638
--	13300	MPa	ISO 527-2/1
Tensile Strength			
Break [2]	98.0	MPa	ASTM D638
Break	110	MPa	ISO 527-2/5
Tensile Elongation			
Break [3]	1.3	%	ASTM D638
Break	1.3	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [4]	12500	MPa	ASTM D790
-- [5]	13000	MPa	ISO 178
Flexural Stress			
--	186	MPa	ISO 178
Yield, 50.0 mm Span [6]	167	MPa	ASTM D790
Break, 50.0 mm Span [7]	176	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	2.4 to 27	kJ/m²	ISO 179
Notched Izod Impact			
23°C	30	J/m	ASTM D256
23°C [8]	3.5	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	330	J/m	ASTM D4812
23°C [9]	25	kJ/m²	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	227	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [10]	228	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	215	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [11]	206	°C	ISO 75-2/Af
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ASTM E831
Flow : 40 to 120°C	4.1E-5	cm/cm/°C	
Transverse : 40 to 120°C	8.5E-5	cm/cm/°C	
Thermal Conductivity			
-- [12]	1.4	W/m/K	ASTM E1461
-- [13]	1.8	W/m/K	ASTM E1461
-- [14]	0.90	W/m/K	ISO 22007-2
-- [15]	1.9	W/m/K	ISO 22007-2
RTI Elec	130	°C	UL 746
RTI Imp	105	°C	UL 746
RTI Str	120	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Dielectric Strength (1.00 mm, in Oil)	> 10	kV/mm	ASTM D149
Dielectric Constant (1.10 GHz)	4.84		ASTM ES7-83
Dissipation Factor (1.10 GHz)	9.9E-3		ASTM ES7-83
Comparative Tracking Index	600	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.800 mm)	V-0		UL 94
Glow Wire Flammability Index (1.00 to 3.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	750	°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.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	1.3 mm/min
5.	2.0 mm/min
6.	1.3 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, 10*10*3mm sample
13.	in-plane, ø25*0.4mm disc
14.	through-plane, ø80*3mm discs
15.	in-plane, ø80*3mm discs

Recommended distributors for this material

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