

LNP™ KONDUIT™ PX11311 compound

Polyamide 6

SABIC Innovative Plastics Asia Pacific

Message:

Thermally conductive mineral filled PA6 FR compound

Also known as: LNP* KONDUIT* Compound PX11311

Product reorder name: PX11311

General Information			
UL YellowCard	E207780-101041511		
Filler / Reinforcement	Mineral		
Features	Flame Retardant		
	Thermally Conductive		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.74	g/cm ³	ASTM D792
Melt Volume-Flow Rate (MVR) (300°C/10.0 kg)	49.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.33	%	
Across Flow : 24 hr	0.48	%	
Water Absorption			
23°C, 24 hr	0.25	%	Internal Method
Equilibrium, 23°C, 50% RH	0.040	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹	7240	MPa	ASTM D638
Tensile Strength ² (Break)	52.0	MPa	ASTM D638
Tensile Elongation ³ (Break)	2.0	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	9050	MPa	ASTM D790
Flexural Strength ⁵ (Break, 50.0 mm Span)	76.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	5.3 to 18	kJ/m ²	ISO 179
Notched Izod Impact (23°C)	43	J/m	ASTM D256
Unnotched Izod Impact (23°C)	180	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	199	°C	ASTM D648
CLTE			ASTM E831
Flow : -40 to 40°C	3.1E-5	cm/cm/°C	
Flow : 40 to 120°C	1.9E-5	cm/cm/°C	

Transverse : -40 to 40°C	4.6E-5	cm/cm/°C	
Transverse : 40 to 120°C	7.0E-5	cm/cm/°C	
Specific Heat	1420	J/kg/°C	ASTM C351
Thermal Conductivity			
-- 6	1.2	W/m/K	ASTM E1461
-- 7	2.1	W/m/K	ASTM E1461
-- 8	0.99	W/m/K	ISO 22007-2
-- 9	1.4	W/m/K	ISO 22007-2
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)	4.74		ASTM ES7-83
Dissipation Factor (1.10 GHz)	7.7E-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 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.00 mm)	V-0		UL 94
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.00 mm	775	°C	
3.00 mm	850	°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.	1.3 mm/min		
6.	through-plane, 10*10*3mm sample		
7.	in-plane, ø25*0.4mm disc		
8.	through-plane, ø80*3mm discs		

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