

LNP™ KONDUIT™ PX10323 compound

Polyamide 6

SABIC Innovative Plastics Europe

Message:

Thermally conductive, electrically conductive mineral filled PA6 compound

Also known as: LNP* KONDUIT* Compound PX10323

Product reorder name: PX10323

General Information			
Filler / Reinforcement	Mineral		
Features	Electrically Conductive		
	Thermally Conductive		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.61	g/cm ³	ISO 1183, ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.15	%	
Across Flow : 24 hr	0.17	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	10800	MPa	ASTM D638
--	16000	MPa	ISO 527-2/1
Tensile Strength			
Break ²	54.0	MPa	ASTM D638
Break	75.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ³	1.0	%	ASTM D638
Break	0.90	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁴	12400	MPa	ASTM D790
-- ⁵	14000	MPa	ISO 178
Flexural Stress			
--	90.0	MPa	ISO 178
Break, 50.0 mm Span ⁶	78.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	26	J/m	ASTM D256
23°C ⁷	3.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			

23°C	150	J/m	ASTM D4812
23°C ⁸	8.0	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	186	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁹	200	°C	ISO 75-2/Af
Ball Pressure Test (165°C)	Pass		IEC 60695-10-2
CLTE			
Flow : -40 to 40°C	1.6E-5	cm/cm/°C	ASTM E831
Flow : -30 to 80°C	1.4E-5	cm/cm/°C	ISO 11359-2
Flow : 23 to 80°C	1.6E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	3.6E-5	cm/cm/°C	ASTM E831
Transverse : -30 to 80°C	4.0E-5	cm/cm/°C	ISO 11359-2
Transverse : 23 to 80°C	4.8E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity			
-- ¹⁰	3.5	W/m/K	ASTM E1461
-- ¹¹	15	W/m/K	ASTM E1461
-- ¹²	1.5	W/m/K	ISO 22007-2
-- ¹³	18	W/m/K	ISO 22007-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	3.0E+5	ohms	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.00 mm)	HB		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
	850		
1.00 mm	650	°C	
1.60 mm	960	°C	
Glow Wire Ignition Temperature (1.00 mm)	825	°C	IEC 60695-2-13
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 90.0	°C	
Drying Time	3.0 to 4.0	hr	
Rear Temperature	260 to 290	°C	
Middle Temperature	270 to 300	°C	
Front Temperature	270 to 300	°C	
Nozzle Temperature	270 to 300	°C	
Processing (Melt) Temp	270 to 300	°C	
Mold Temperature	80.0 to 100	°C	
Back Pressure	3.00 to 9.00	MPa	
Screw Speed	30 to 150	rpm	
NOTE			

1.	50 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.	80*10*4
8.	80*10*4
9.	80*10*4 mm
10.	through-plane, 10*10*3mm sample
11.	in-plane, $\varnothing 25 \times 0.4$ mm disc
12.	through-plane, 60*60*3mm plaque
13.	in-plane, 60*60*3mm plaque

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

