



LNP™ KONDUIT™ PX08321 compound

General Information

Product Description

Thermally conductive mineral filled PA6 compound

Also known as: LNP* KONDUIT* Compound PX08321

Product reorder name: PX08321

General

Filler / Reinforcement	• Mineral
Features	• Thermally Conductive
Processing Method	• Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.61		ASTM D792
Melt Mass-Flow Rate (MFR) (285°C/6.7 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (24 hr)	4.6E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (24 hr)	3.9E-3	in/in	ASTM D955
Water Absorption (73°F, 24 hr)	0.34	%	Internal Method
Water Absorption (Equilibrium, 73°F, 50% RH)	0.060	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2.00E+6	psi	ASTM D638
Tensile Strength ³ (Break)	10200	psi	ASTM D638
Flexural Modulus ⁴ (1.97 in Span)	2.06E+6	psi	ASTM D790
Flexural Strength ⁴ (Break, 1.97 in Span)	15100	psi	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	0.45	ft-lb/in	ASTM D256
Unnotched Izod Impact (73°F)	2.9	ft-lb/in	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.126 in	378	°F	ASTM D648
CLTE - Flow			ASTM E831
-40 to 104°F	9.1E-6	in/in/°F	
104 to 248°F	2.0E-5	in/in/°F	

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Thermal	Nominal Value	Unit	Test Method
CLTE - Transverse			ASTM E831
-40 to 104°F	1.6E-5	in/in/°F	
104 to 248°F	3.1E-5	in/in/°F	
Thermal Conductivity			ASTM E1461
-- 5	18	Btu·in/hr/ft²/°F	
-- 6	69	Btu·in/hr/ft²/°F	
Thermal Conductivity			ISO 22007-2
-- 7	7.6	Btu·in/hr/ft²/°F	
-- 8	59	Btu·in/hr/ft²/°F	
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (0.0394 in, in Oil)	370	V/mil	ASTM D149
Dielectric Constant			ASTM D150
50 Hz	6.20		
60 Hz	6.20		
1 MHz	4.10		
Dissipation Factor			ASTM D150
50 Hz	0.076		
60 Hz	0.076		
1 MHz	0.044		
Comparative Tracking Index	600	V	IEC 60112
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.0394 in)	HB		UL 94
Glow Wire Flammability Index (0.0394 in)	1760	°F	IEC 60695-2-12
Glow Wire Ignition Temperature (0.0394 in)	1520	°F	IEC 60695-2-13

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	176 to 194	°F
Drying Time	3.0 to 4.0	hr
Rear Temperature	500 to 554	°F
Middle Temperature	518 to 572	°F
Front Temperature	518 to 572	°F
Nozzle Temperature	518 to 572	°F
Processing (Melt) Temp	518 to 572	°F
Mold Temperature	176 to 212	°F
Back Pressure	435 to 1310	psi
Screw Speed	30 to 150	rpm

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Notes

¹ Typical properties: these are not to be construed as specifications.
² 2.0 in/min
³ Type I, 0.20 in/min
⁴ 0.051 in/min
⁵ through-plane, 10*10*3mm sample
⁶ in-plane, ø25*0.4mm disc
⁷ through-plane, ø80*3mm discs
⁸ in-plane, ø80*3mm discs