

LNP™ KONDUIT™ COMPOUND PX10323

PX10323

REGION ASIA

DESCRIPTION

Thermally conductive, electrically conductive mineral filled PA6 compound

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	70	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	13700	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	96	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	95	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	14200	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	70	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.8	%	ISO 527
Tensile Modulus, 1 mm/min	14000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	96	MPa	ISO 178
Flexural Modulus, 2 mm/min	14600	MPa	ISO 178
Impact Strength	3.7 – 6.8	kJ/m ²	ISO R179
IMPACT			
Izod Impact, unnotched, 23°C	73	J/m	ASTM D 4812
Izod Impact, notched, 23°C	30	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	204	°C	ASTM D 648
CTE, 40°C to 120°C, flow	1.24E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	7.27E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60*60*3mm plaque	1.5	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, 60*60*3mm plaque	18	W/m-K	ISO 22007-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Thermal Conductivity through-plane, 10*10*3mm sample	3.5	W/m-K	ASTM E 1461-07
Thermal Conductivity in-plane, 25*0.4mm disc	15	W/m-K	ASTM E 1461-07
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	217	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	202	°C	ISO 75/Af
PHYSICAL			
Density	1.61	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.22	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.05E+06	Ohm	ASTM D 257
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	1	mm	IEC 60695-2-12
Glow Wire Flammability Index 960°C, passes at	1.6	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	825	°C	IEC 60695-2-13
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	270 – 295	°C	
Front - Zone 3 Temperature	270 – 290	°C	
Middle - Zone 2 Temperature	270 – 290	°C	
Rear - Zone 1 Temperature	260 – 275	°C	
Mold Temperature	85 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	20 – 60	rpm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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