



LNP™ KONDUIT™ Compound PX13322

Asia Pacific: COMMERCIAL

Thermally conductive mineral filled PA6 FR compounding

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	780	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	0.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	139600	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1290	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	112100	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	78	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.8	%	ISO 527
Tensile Modulus, 1 mm/min	13000	MPa	ISO 527
Flexural Stress, break, 2 mm/min	128	MPa	ISO 178
Flexural Modulus, 2 mm/min	12000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	23	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	2	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	16	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm	205	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	174	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.08E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.77E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, flow	2.35E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	5.25E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60*60*3mm plaque	1	W/m-K	ISO 22007-2



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THERMAL			
Thermal Conductivity in-plane, 60*60*3mm plaque	3.3	W/m-K	ISO 22007-2
Thermal Conductivity through-plane, 10*10*3mm sample	2	W/m-K	ASTM E 1461-07
Thermal Conductivity in-plane, ø25*0.4mm disc	3.4	W/m-K	ASTM E 1461-07
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	204	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	162	°C	ISO 75/Af
PHYSICAL			
Density	1.69	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.54	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.57	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.06	%	ISO 62-1
ELECTRICAL			
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.0 mm	>10	kV/mm	ASTM D 149
Dielectric Constant (Dk), 1.1 GHz	4.86	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.0103	-	ASTM ES 7-83
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index	600	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.8	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	1 - 3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	800	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	850	°C	IEC 60695-2-13



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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