



LNP™ KONDUIT™ Compound PX11313

Asia Pacific: COMMERCIAL

Also known as: LNP™ KONDUIT™ Compound PX11313

Product reorder name: PX11313

Thermally conductive mineral filled PA6 FR compounding

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	990	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.3	%	ASTM D 638
Tensile Modulus, 5 mm/min	135400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1700	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1790	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	127400	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	110	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	13250	MPa	ISO 527
Flexural Stress, break, 2 mm/min	186	MPa	ISO 178
Flexural Modulus, 2 mm/min	13000	MPa	ISO 178
Impact Strength	2.4 - 27.5	cm-kgf/cm ²	ISO R179
IMPACT			
Izod Impact, unnotched, 23°C	33	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	24	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	227	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	215	°C	ASTM D 648
CTE, 40°C to 120°C, flow	4.05E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	8.54E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 10*10*3mm sample	1.4	W/m-K	ASTM E 1461-07



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THERMAL			
Thermal Conductivity in-plane, ø25*0.4mm disc	1.8	W/m-K	ASTM E 1461-07
Thermal Conductivity through-plane, ø80*3mm discs	0.9	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, ø80*3mm discs	1.9	W/m-K	ISO 22007-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	228	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	206	°C	ISO 75/Af
Relative Temp Index, Elec	130	°C	UL 746B
Relative Temp Index, Mech w/impact	105	°C	UL 746B
Relative Temp Index, Mech w/o impact	120	°C	UL 746B
PHYSICAL			
Density	1.79	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.42	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.58	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.04	%	ISO 62-1
Water Absorption, 23°C/24hrs	0.23	%	SABIC Method
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
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	4.84	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.0099	-	ASTM ES 7-83
Hot Wire Ignition {PLC}	3	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



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FLAME CHARACTERISTICS			
Glow Wire Flammability Index 960°C, passes at	1 - 3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	750	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 3.0 mm	800	°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