



LNP™ KONDUIT™ Compound PX13012

Europe-Africa-Middle East: COMMERCIAL

Thermally conductive, mineral filled PA6 compliant with ECO protocols, non-brominated, non chlorinated

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	690	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	105500	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1210	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	120300	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	75	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.1	%	ISO 527
Tensile Modulus, 1 mm/min	13000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	105	MPa	ISO 178
Flexural Modulus, 2 mm/min	12000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	15	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	1	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	9	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	203	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	137	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.4E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60*60*3mm plaque	1.2	W/m-K	ISO 22007-2
Thermal Conductivity in-plane, 60*60*3mm plaque	5.5	W/m-K	ISO 22007-2
CTE, -30°C to 80°C, flow	3.9E-05	1/°C	ISO 11359-2



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THERMAL			
CTE, -30°C to 80°C, xflow	5.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 165°C +/- 2°C	PASSES	-	IEC 60695-10-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	203	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	160	°C	ISO 75/Af
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.7	%	SABIC Method
Mold Shrinkage, flow, 24 hrs (5)	0.55	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.65	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.55	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.65	%	ISO 294
Density	1.68	g/cm ³	ISO 1183
Water Absorption, 23°C/24hrs	0.23	%	ISO 62-1
ELECTRICAL			
Surface Resistivity	4.E+14	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.6 mm	7.2	kV/mm	ASTM D 149
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {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	0.8	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 0.8 mm	750	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.6 mm	775	°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