SABIC Innovative Plastics™

LNP* Konduit* Compound PX11311

Asia Pacific: COMMERCIAL

Also known as: PX11311

Product Reorder name:PX11311

Thermally conductive mineral filled PA6 FR compound, with through-plane thermal conductivity of 1.2 W/(m*K) measured with 3mm thick specimen, conforming to ASTM E 1461 test standard.

TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	47	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.4	%	ASTM D 638
Tensile Modulus, 5 mm/min	8030	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	76	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	9040	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	160	J/m	ASTM D 4812
Izod Impact, notched, 23°C	40	J/m	ASTM D 256
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	199	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.13E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.59E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, flow	1.94E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	6.95E-05	1/°C	ASTM E 831
Specific Heat	1.42	J/g-°C	ASTM C 351
PHYSICAL			
Density	1.79	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.33	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.48	%	ASTM D 955
Water Absorption, 23°C/24hrs	0.25	%	SABIC Method
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
Melt Volume Rate, MVR at 300°C/10.0 kg	11	cm³/10 min	ISO 1133
ELECTRICAL			
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 1.0 mm	>10	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	600	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94V-0, Flame Class Rating (3)	1	mm	UL 94

1) Typical values only. Variations within normal tolerances are possible for variose colours.All values are measured at least after 48 hours storage at 230C/50% relative humidity.
All properties, except the melt volume rate are measured on injection moulded samples.
All samples are prepared according to ISO 294.

2) Only typical data for material selection purpose.Not to be used for part or tool design.
3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
4) Own measurement according to UL.
5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

Source, GMD, Last Update:

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TYPICAL PROPERTIES [1]	TYPICAL VALUE	UNIT	STANDARD
FLAME CHARACTERISTICS			
Glow Wire Flammability Index 960°C, passes at	1 - 3	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 1.0 mm	775	°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

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