

LNPTM COLORCOMPTM COMPOUND A1000PXB

DESCRIPTION

LNP COLORCOMP A1000PXB compound is based on unfilled Acrylonitrile Butadiene Styrene (ABS) resin. Added features of this grade include: Healthcare, Biocompatible (ISO 10993), Low Extractables, Gamma & EtO Sterilizable, Exceptional Processing.

GENERAL INFORMATION

Features	High Flow, Aesthetics/Visual effects, Biocompatibility-ISO10993, Food contact, Healthcare/Formula lock, Sterilizable, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Acrylonitrile Butadiene Styrene (ABS)
Processing Techniques	Injection Molding

INDUSTRY

SUB INDUSTRY

Building and Construction	Water Management
Consumer	Home Appliances
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging, Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	46	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	35	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	18	%	ASTM D638
Tensile Modulus, 5 mm/min	2480	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	79	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2620	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	40	MPa	ISO 527
Tensile Stress, break, 5 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	35	%	ISO 527
Tensile Modulus, 1 mm/min	2450	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched, 23°C	240	J/m	ASTM D256
Izod Impact, notched, -30°C	80	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	21	J	ASTM D3763
Izod Impact, notched 80°10°4 +23°C	16	kJ/m ²	ISO 180/1A
Izod Impact, notched 80°10°4 -30°C	7	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80°10°3 sp=62mm	23	kJ/m ²	ISO 179/1eA

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
Vicat Softening Temp, Rate B/50	98	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	93	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D648
CTE, -40°C to 40°C, flow	8.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.5E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	98	°C	ISO 306
Vicat Softening Temp, Rate B/120	100	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	80	°C	ISO 75/Af
Relative Temp Index, Elec ⁽²⁾	60	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	60	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	60	°C	UL 746B
PHYSICAL ⁽¹⁾			
Specific Gravity	1.04	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm ⁽³⁾	0.5 – 0.8	%	SABIC method
Melt Flow Rate, 230°C/3.8 kg	11.7	g/10 min	ASTM D1238
Density	1.06	g/cm³	ISO 1183
Melt Flow Rate, 220°C/10.0 kg	42	g/10 min	ISO 1133
Melt Flow Rate, 220°C/5.0 kg	12	g/10 min	ISO 1133
Melt Viscosity, 240°C, 1000 sec-1	173	Pa-s	ISO 11443
ELECTRICAL ⁽¹⁾			
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 3	≥3	mm	UL 746A
Hot-Wire Ignition (HWI), PLC 4	≥1.5	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥1.5	mm	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D495
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E121562-103956407</u>	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
Glow Wire Ignitability Temperature, 3.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 2.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.5 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	700	°C	IEC 60695-2-13
Glow Wire Flammability Index, 3.0 mm	650	°C	IEC 60695-2-12
Glow Wire Flammability Index, 2.0 mm	650	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.5 mm	650	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.0 mm	650	°C	IEC 60695-2-12
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	80 – 90	°C	
Drying Time	2 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	205 – 245	°C	
Nozzle Temperature	205 – 245	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Front - Zone 3 Temperature	205 – 225	°C	
Middle - Zone 2 Temperature	200 – 210	°C	
Rear - Zone 1 Temperature	190 – 200	°C	
Mold Temperature	50 – 70	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	30 – 60	rpm	
Shot to Cylinder Size	50 – 70	%	
Vent Depth	0.038 – 0.051	mm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) 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.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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