

LNPT[™] FARADEx[™] COMPOUND WX94736

PDX-W-94736

DESCRIPTION

LNP FARADEx WX94736 compound is based on Polybutylene Terephthalate (PBT) resin containing stainless steel fiber. Added features of this grade include: EMI/RFI shielding, Electrically Conductive.

GENERAL INFORMATION

Features	Electrically Conductive, EMI/RFI Shielding
Fillers	Stainless Steel Fiber
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY

Consumer
Electrical and Electronics
Industrial
Packaging

SUB INDUSTRY

Commercial Appliance
Electronic Components
Electrical, Material Handling
Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	53	MPa	ASTM D638
Tensile Stress, break	53	MPa	ASTM D638
Tensile Strain, yield	2.7	%	ASTM D638
Tensile Strain, break	2.8	%	ASTM D638
Tensile Modulus, 50 mm/min	3440	MPa	ASTM D638
Tensile Stress, yield	53	MPa	ISO 527
Tensile Stress, break	53	MPa	ISO 527
Tensile Strain, yield	2.8	%	ISO 527
Tensile Strain, break	2.9	%	ISO 527
Tensile Modulus, 1 mm/min	3110	MPa	ISO 527
Flexural Stress	83	MPa	ISO 178
Flexural Modulus	3100	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	614	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	22	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	99	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.84E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	8.28E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	6.90E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.30E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	123	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.51	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.8 – 1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 1.2	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.89	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1.1	%	ISO 294
Density	1.5	g/cm ³	ISO 1183
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽³⁾	1.E+03 – 1.E+07	Ω.cm	ASTM D257
Surface Resistivity ⁽³⁾	1.E+02 – 1.E+06	Ω	ASTM D257
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	80 – 100	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(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) 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.

(3) Measurement meets requirements as specified in ASTM D4496.

(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.

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