

# LNPT<sup>TM</sup> FARADEX<sup>TM</sup> COMPOUND WX08014

## DESCRIPTION

LNP FARADEX WX08014 compound is based on Polybutylene Terephthalate (PBT) resin containing stainless steel fiber. Added features of this grade include: EMI/RFI shielding, Electrically Conductive, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, EMI/RFI Shielding, No PFAS intentionally added
Fillers	Stainless Steel Fiber
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Consumer	Commercial Appliance
Electrical and Electronics	Electronic Components
Industrial	Electrical, Material Handling
Packaging	Industrial Packaging

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield, 5 mm/min	44	MPa	ISO 527
Tensile Stress, break, 5 mm/min	43	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2.5	%	ISO 527
Tensile Modulus, 1 mm/min	3200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	79	MPa	ISO 178
Flexural Stress, break, 2 mm/min	78	MPa	ISO 178
Flexural Strain, break, 2 mm/min	3.7	%	ISO 178
Flexural Modulus, 2 mm/min	3400	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched 80*10*4 +23°C	15	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
CTE, 23°C to 60°C, flow	9.7E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.11E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	150	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	76	°C	ISO 75/Af
<b>PHYSICAL <sup>(1)</sup></b>			
Mold Shrinkage, flow, 24 hrs <sup>(2)</sup>	1.9	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(2)</sup>	2.2	%	ISO 294
Density	1.64	g/cm <sup>3</sup>	ISO 1183

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>ELECTRICAL <sup>(1)</sup></b>			
Surface Resistivity <sup>(3)</sup>	1.E+02 – 1.E+03	Ω	ASTM D257
Shielding Effectiveness @ 3mm	45 – 55	dB	SABIC method
<b>FLAME CHARACTERISTICS</b>			
UL Compliant, 94V-0 Flame Class Rating <sup>(4)</sup>	3	mm	UL 94 by SABIC-IP
<b>INJECTION MOLDING <sup>(5)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	245 – 260	°C	
Front - Zone 3 Temperature	250 – 260	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	230 – 245	°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) UL rating shown here is based on internal measurements.
- (5) 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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