

# LNPTM FARADEXTM COMPOUND DS0026I

## DESCRIPTION

LNP FARADEX DS0026I compound is based on Polycarbonate (PC) resin containing 10% stainless steel fiber. Added features of this grade include: High Impact, Flame Retardant, Non-Brominated & Non-Chlorinated Flame Retardant, Electrically Conductive, EMI/RFI shielding.

GENERAL INFORMATION	
Features	Flame Retardant, Electrically Conductive, EMI/RFI Shielding, Non Cl/Br flame retardant, Impact resistant
Fillers	Stainless Steel Fiber
Polymer Types	Polycarbonate (PC)
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, yld, Type I, 5 mm/min	60	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.5	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	7.8	%	ASTM D638
Tensile Modulus, 5 mm/min	2780	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2510	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	56	MPa	ISO 527
Tensile Stress, break, 5 mm/min	49	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.2	%	ISO 527
Tensile Strain, break, 5 mm/min	5.4	%	ISO 527
Tensile Modulus, 1 mm/min	2490	MPa	ISO 527
Flexural Strength, 2 mm/min	87	MPa	ISO 178
Flexural Modulus, 2 mm/min	2410	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	153	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	116	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	12	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL <sup>(1)</sup></b>			
HDT, 1.82 MPa, 3.2mm, unannealed	130	°C	ASTM D648
CTE, -40°C to 40°C, flow	5.8E-05	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	6.4E-05	1/°C	ASTM E831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	138	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°C	ISO 75/Af
Relative Temp Index, Elec <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	80	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	80	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Specific Gravity	1.26	-	ASTM D792
Density	1.26	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	0.78	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	1	%	ASTM D955
<b>ELECTRICAL <sup>(1)</sup></b>			
Shielding Effectiveness @ 3mm	35 – 50	dB	SABIC method
Volume Resistivity <sup>(4)</sup>	1.41E+03	Ω.cm	ASTM D257
Surface Resistivity <sup>(4)</sup>	2.3E+01	Ω	ASTM D257
Static Decay	0.01	Seconds	NFPA/MIL B-81705-D
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-102158629</a>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.6	mm	UL 94
<b>INJECTION MOLDING <sup>(5)</sup></b>			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	95 – 120	°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) 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) Measurement meets requirements as specified in ASTM D4496.

(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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