

LNPTTM FARADExTM COMPOUND 9X23246

DESCRIPTION

LNP FARADEx 9X23246 compound is based on Polycarbonate/Acrylonitrile Styrene Acrylate (PC/ASA) blend containing a stainless steel fiber. Added features of this grade include: Electrically Conductive, EMI/RFI shielding

GENERAL INFORMATION	
Features	Electrically Conductive, EMI/RFI Shielding, No PFAS intentionally added
Fillers	Stainless Steel Fiber
Polymer Types	Polycarbonate + ASA (PC+ASA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Interiors
Electrical and Electronics	Electrical Components and Infrastructure

TYPICAL PROPERTY VALUES

Revision 20240201

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Tensile Strain, break, 5 mm/min	45	%	ISO 527
Tensile Nominal Strain, break, 5 mm/min	5	%	ISO 527
Tensile Stress, yield, 5 mm/min	53	MPa	ISO 527
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
Flexural Strength, 2 mm/min	85	MPa	ISO 178
Tensile Modulus, 5 mm/min	2700	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	6	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2700	MPa	ASTM D790
Flexural Stress, yld, 1.3 mm/min, 50 mm span	90	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	70	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	65	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	13	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	60	kJ/m ²	ISO 179/1eU
Izod Impact, notched, 23°C	130	J/m	ASTM D256
Izod Impact, notched, -30°C	85	J/m	ASTM D256
Izod Impact, unnotched, 23°C	850	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	850	J/m	ASTM D4812
THERMAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	112	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	127	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	132	°C	ISO 306
Vicat Softening Temp, Rate B/120	134	°C	ISO 306
CTE, 23°C to 50°C, flow	5.0E-05	1/°C	ISO 11359-2
CTE, 23°C to 50°C, xflow	6.0E-05	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	112	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	127	°C	ASTM D648
PHYSICAL ⁽¹⁾			
Density	1.23	g/cm ³	ISO 1183
Specific Gravity	1.23	-	ASTM D792
Mold Shrinkage, flow	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow	0.1 – 0.4	%	SABIC method
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Water Absorption, (23°C/ saturated)	0.4	%	ASTM D570
ELECTRICAL ⁽¹⁾			
Surface Resistivity	1.0E+01 – 1.0E+03	Ω	ASTM D257
Volume Resistivity	1.0E+02 – 1.0E+04	Ω.cm	ASTM D4496
Shielding Effectiveness @ 3mm	50 – 65	dB	SABIC method
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
INJECTION MOLDING ⁽²⁾			
Drying Temperature	100 – 110	°C	
Drying Time	2 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 290	°C	
Rear - Zone 1 Temperature	240 – 270	°C	
Middle - Zone 2 Temperature	250 – 280	°C	
Front - Zone 3 Temperature	260 – 290	°C	
Nozzle Temperature	260 – 290	°C	
Mold Temperature	60 – 90	°C	

(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) 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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