

LNPT[™] FARADEx[™] COMPOUND NX07344

DESCRIPTION

LNP FARADEx NX07344 compound is based on Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) blend containing stainless steel fiber and glass fiber. Added features of this grade include: EMI/RFI shielding, Electrically Conductive, Non-Brominated and Non-Chlorinated Flame Retardant.

GENERAL INFORMATION

Features	Flame Retardant, Electrically Conductive, EMI/RFI Shielding, Non Cl/Br flame retardant
Fillers	Glass Fiber, Stainless Steel Fiber
Polymer Types	Polycarbonate + ABS (PC+ABS)
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, brk, Type I, 5 mm/min	60	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.8	%	ASTM D638
Tensile Modulus, 50 mm/min	6000	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	90	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	90	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5300	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	62	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	5800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	105	MPa	ISO 178
Flexural Strain, break, 2 mm/min	2.8	%	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	350	J/m	ASTM D4812
Izod Impact, unnotched, -30°C	330	J/m	ASTM D4812
Izod Impact, notched, 23°C	60	J/m	ASTM D256
Izod Impact, notched, -30°C	44	J/m	ASTM D256
Multiaxial Impact	4	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	21	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	21	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 -30°C	5	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m²	ISO 179/1eA
THERMAL ⁽¹⁾			
Vicat Softening Temp, Rate A/50	101	°C	ASTM D1525
Vicat Softening Temp, Rate B/50	105	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	94	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	96	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.1E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.8E-05	1/°C	ASTM E831
CTE, 23°C to 60°C, flow	2.9E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	7.4E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate A/50	102	°C	ISO 306
Vicat Softening Temp, Rate B/120	105	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	96	°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⁾			
Density	1.46	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.08	%	ASTM D570
Mold Shrinkage, flow ⁽³⁾	0.38	%	SABIC method
Mold Shrinkage, xflow ⁽³⁾	0.46	%	SABIC method
Density	1.46	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
ELECTRICAL ⁽¹⁾			
Volume Resistivity ⁽⁴⁾	1.E+04 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity ⁽⁴⁾	1.E+03 – 1.E+06	Ω	ASTM D257
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
Shielding Effectiveness @ 1.5mm	47 – 53	dB	SABIC method
Shielding Effectiveness @ 3mm	60 – 70	dB	SABIC method
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E207780-101282735	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING ⁽⁵⁾			
Drying Temperature	85 – 90	°C	
Drying Time	3 – 4	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	270 – 300	°C	
Nozzle Temperature	265 – 300	°C	
Front - Zone 3 Temperature	265 – 300	°C	
Middle - Zone 2 Temperature	260 – 300	°C	
Rear - Zone 1 Temperature	260 – 300	°C	
Mold Temperature	60 – 100	°C	
Back Pressure	4	MPa	
Screw Speed	30 – 100	rpm	

© 2023 Copyright by SABIC. All rights reserved

CHEMISTRY THAT MATTERS™



- (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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.