LNP™ FARADEX™ COMPOUND NS003

PCA-S-1003
REGION ASIA

DESCRIPTION

LNP FARADEX NS003 is a compound based on PC+ABS resin containing 15% Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

TYPICAL PROPERTY VALUES

Revision 20170425

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	52	MPa	ASTM D 638
Tensile Stress, break	49	MPa	ASTM D 638
Tensile Strain, yield	3.3	%	ASTM D 638
Tensile Strain, break	4.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	3100	MPa	ASTM D 638
Flexural Stress	89	MPa	ASTM D 790
Tensile Stress, yield	50	MPa	ISO 527
Tensile Stress, break	46	MPa	ISO 527
Tensile Strain, yield	3.5	%	ISO 527
Tensile Strain, break	6	%	ISO 527
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Flexural Stress	86	MPa	ISO 178
Flexural Modulus	2800	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	573	J/m	ASTM D 4812
Izod Impact, notched, 23°C	74	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	120	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	105	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.74E-05	1/°C	ASTM E 831

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	6.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Af
PHYSICAL			
Density	1.24	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	30	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	35	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.35	%	ISO 294
Density	1.21	g/cm³	ISO 1183
ELECTRICAL			
Volume Resistivity	1.E+04	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+01 – 1.E+03	Ohm	ASTM D 257
Shielding Effectivness @ 3mm	50 – 65	dB	SABIC method
MECHANICAL PROPERTIES			
Flexural Modulus	2990	MPa	ASTM D 790
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	220 – 260	°C	
Front - Zone 3 Temperature	245 – 255	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Rear - Zone 1 Temperature	220 – 230	°C	
Mold Temperature	40 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.
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