

LNP™ FARADEX™ COMPOUND MS003

MS-1003
REGION EUROPE

DESCRIPTION

LNP* FARADEX* MS003 is a compound based on Polypropylene resin containing 15% Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	19	MPa	ASTM D 638
Tensile Stress, break	15	MPa	ASTM D 638
Tensile Strain, yield	6.2	%	ASTM D 638
Tensile Strain, break	88.4	%	ASTM D 638
Tensile Modulus, 50 mm/min	1190	MPa	ASTM D 638
Flexural Stress	27	MPa	ASTM D 790
Tensile Stress, yield	21	MPa	ISO 527
Tensile Stress, break	15	MPa	ISO 527
Tensile Strain, yield	5.2	%	ISO 527
Tensile Strain, break	72	%	ISO 527
Tensile Modulus, 1 mm/min	1300	MPa	ISO 527
Flexural Stress	32	MPa	ISO 178
Flexural Modulus	1500	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1226	J/m	ASTM D 4812
Izod Impact, notched, 23°C	267	J/m	ASTM D 256
Multiaxial Impact	22	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	80	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	92	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	53	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.04E-04	1/°C	ASTM E 831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	9.72E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.43E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.7E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	95	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°C	ISO 75/Af
PHYSICAL			
Density	1.01	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	120	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	130	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.3	%	ISO 294
Density	1.01	g/cm ³	ISO 1183
Water Absorption, 23°C/24hrs	0.03	%	ISO 62-1
ELECTRICAL			
Volume Resistivity	1.E+04	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+03	Ohm	ASTM D 257
Static Decay, 5000V to <50V	0.01	< seconds	FTMS101B
Shielding Effectiveness @ 3mm	50 – 65	dB	SABIC method
MECHANICAL PROPERTIES			
Flexural modulus	1190	MPa	ISO 178/1A
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Melt Temperature	230 – 250	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Rear - Zone 1 Temperature	205 – 215	°C	
Mold Temperature	30 – 55	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	25 – 50	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.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

SABIC as referred to herein means any legal entity belonging to the group of companies headed by Saudi Arabia Basic Industries



Corporation.