LNP™ FARADEX™ NS003 compound

Polycarbonate + ABS

SABIC Innovative Plastics

Message:

LNP* Faradex* NS003 is a compound based on PC+ABS Blend resin containing Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.
Also known as: LNP* FARADEX* Compound PCA-S-1003
Product reorder name: NS003

General Information			
Filler / Reinforcement	Stainless steel fiber		
Features	Conductivity Electromagnetic shielding (EMI) Radio frequency shielding (RFI)		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.24	g/cm³	ASTM D792
--	1.21	g/cm³	ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.30	%	ASTM D955
Transverse flow: 24 hours	0.35	%	ASTM D955
Vertical flow direction: 24 hours	0.35	%	ISO 294-4
Flow direction: 24 hours	0.30	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	0.10	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	3110	MPa	ASTM D638
--	2700	MPa	ISO 527-2/1
Tensile Strength			
Yield	52.4	MPa	ASTM D638
Yield	50.0	MPa	ISO 527-2
Fracture	49.6	MPa	ASTM D638
Fracture	46.0	MPa	ISO 527-2
Tensile Elongation			
Yield	3.3	%	ASTM D638
Yield	3.5	%	ISO 527-2
Fracture	4.7	%	ASTM D638
Fracture	6.0	%	ISO 527-2

Flexural Modulus			
--	2990	MPa	ASTM D790
--	2800	MPa	ISO 178
Flexural Strength			
--	89.6	MPa	ASTM D790
--	86.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	75	J/m	ASTM D256
23°C [2]	9.5	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	570	J/m	ASTM D4812
23°C [3]	32	kJ/m²	ISO 180/1U
Instrumented Dart Impact (23°C, Energy at Peak Load)	15.0	J	ASTM D3763
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	120	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span [4]	115	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	105	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [5]	103	°C	ISO 75-2/Af
Linear thermal expansion coefficient			
Flow: -40 to 40°C	7.7E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	5.9E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	6.3E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	8.2E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	10 - 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0E+4	ohms·cm	ASTM D257
Static Decay [6]	10	msec	FTMS 101B
Shielding Effectiveness (3.00 mm)	50 - 65	dB	Internal method
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	221 - 232	°C	
Middle Temperature	232 - 243	°C	
Front Temperature	243 - 254	°C	
Processing (Melt) Temp	221 - 260	°C	
Mold Temperature	37.8 - 82.2	°C	
Back Pressure	0.172 - 0.344	MPa	
Screw Speed	30 - 60	rpm	

NOTE	
1.	50 mm/min
2.	80*10*4
3.	80*10*4
4.	80*10*4 mm
5.	80*10*4 mm
6.	5000V to <50V

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China