

LNP™ FARADEX™ AS003 compound

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

LNP* FARADEX* AS003 is a compound based on ABS resin containing 15% Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.
Also known as: LNP* FARADEX* Compound AS-1003
Product reorder name: AS003

General Information			
Filler / Reinforcement	Stainless Steel Fiber,15% Filler by Weight		
Features	Electrically Conductive		
	Electromagnetic Shielding (EMI)		
	Radio Frequency Shielding (RFI)		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.16	g/cm ³	ASTM D792
--	1.15	g/cm ³	ISO 1183
Molding Shrinkage			
Flow : 24 hr	0.30	%	ASTM D955
Across Flow : 24 hr	0.40	%	ASTM D955
Across Flow : 24 hr	0.39	%	ISO 294-4
Flow : 24 hr	0.27	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	3160	MPa	ASTM D638
--	2700	MPa	ISO 527-2/1
Tensile Strength			
Yield	42.1	MPa	ASTM D638
Yield	38.0	MPa	ISO 527-2
Break	39.3	MPa	ASTM D638
Break	37.0	MPa	ISO 527-2
Tensile Elongation			
Yield	2.6	%	ASTM D638
Yield	2.2	%	ISO 527-2
Break	6.2	%	ASTM D638
Break	2.8	%	ISO 527-2
Flexural Modulus			

--	3050	MPa	ASTM D790
--	2800	MPa	ISO 178
Flexural Strength			
--	75.8	MPa	ASTM D790
--	66.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	53	J/m	ASTM D256
23°C ²	7.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	310	J/m	ASTM D4812
23°C ³	18	kJ/m ²	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, 3.20 mm	96.7	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁴	93.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	88.3	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁵	78.0	°C	ISO 75-2/Af
CLTE			
Flow : -40 to 40°C	7.7E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	7.1E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.3E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	9.3E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	10 to 1.0E+3	ohms	ASTM D257
Volume Resistivity	1.0E+4	ohms · cm	ASTM D257
Shielding Effectiveness (3.00 mm)	50 to 65	dB	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050 to 0.10	%	
Rear Temperature	210 to 221	°C	
Middle Temperature	232 to 243	°C	
Front Temperature	254 to 266	°C	
Processing (Melt) Temp	238 to 254	°C	
Mold Temperature	71.1 to 93.3	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 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

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