

LNP™ FARADEX™ AS002 compound

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

LNP FARADEX AS002 is a compound based on Acrylonitrile Butadiene Styrene resin containing Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

Also known as: LNP* FARADEX* Compound AS-1002

Product reorder name: AS002

General Information			
Filler / Reinforcement	Stainless steel fiber		
Features	Conductivity		
	Electromagnetic shielding (EMI)		
	Radio frequency shielding (RFI)		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.12	g/cm ³	ASTM D792
--	1.11	g/cm ³	ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.18	%	ASTM D955
Transverse flow: 24 hours	0.27	%	ASTM D955
Vertical flow direction: 24 hours	0.27	%	ISO 294-4
Flow direction: 24 hours	0.18	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	3000	MPa	ASTM D638
--	2500	MPa	ISO 527-2/1
Tensile Strength			
Yield	42.7	MPa	ASTM D638
Yield	39.0	MPa	ISO 527-2
Fracture	39.3	MPa	ASTM D638
Fracture	37.0	MPa	ISO 527-2
Tensile Elongation			
Yield	2.2	%	ASTM D638, ISO 527-2
Fracture	8.6	%	ASTM D638
Fracture	3.3	%	ISO 527-2
Flexural Modulus			
--	2820	MPa	ASTM D790

--	2500	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	59	J/m	ASTM D256
23°C ²	7.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	290	J/m	ASTM D4812
23°C ³	20	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Energy at Peak Load)	11.9	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	97.2	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ⁴	91.0	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	87.8	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁵	78.0	°C	ISO 75-2/Af
Linear thermal expansion coefficient			
Flow: -40 to 40°C	7.9E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	7.8E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	7.6E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	9.6E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	10 - 1.0E+5	ohms	ASTM D257
Volume Resistivity	1.0E+2 - 1.0E+6	ohms·cm	ASTM D257
Shielding Effectiveness (3.00 mm)	40 - 55	dB	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050 - 0.10	%	
Rear Temperature	210 - 221	°C	
Middle Temperature	232 - 243	°C	
Front Temperature	254 - 266	°C	
Processing (Melt) Temp	238 - 254	°C	
Mold Temperature	71.1 - 93.3	°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

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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

