



# LNP™ FARADEx™ AS002 compound

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## General Information

### Product Description

LNP\* FARADEx\* AS002 is a compound based on Acrylonitrile Butadiene Styrene resin containing 10% 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

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Stainless Steel Fiber, 10% Filler by Weight
Features	• Electrically Conductive • Electromagnetic Shielding (EMI) • Radio Frequency Shielding (RFI)
Processing Method	• Injection Molding

## ASTM and ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.12		ASTM D792
Density	1.11	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage - Flow (24 hr)	1.8E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (24 hr)	2.7E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 24 hr	0.27	%	
Flow : 24 hr	0.18	%	
Water Absorption (24 hr, 50% RH)	0.20	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	435000	psi	ASTM D638
Tensile Modulus	363000	psi	ISO 527-2/1
Tensile Strength (Yield)	6200	psi	ASTM D638
Tensile Stress (Yield)	5660	psi	ISO 527-2
Tensile Strength (Break)	5700	psi	ASTM D638
Tensile Stress (Break)	5370	psi	ISO 527-2
Tensile Elongation (Yield)	2.2	%	ASTM D638
Tensile Strain (Yield)	2.2	%	ISO 527-2
Tensile Elongation (Break)	8.6	%	ASTM D638
Tensile Strain (Break)	3.3	%	ISO 527-2
Flexural Modulus	409000	psi	ASTM D790
Flexural Modulus	363000	psi	ISO 178

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## SABIC Innovative Plastics - Acrylonitrile Butadiene Styrene

Mechanical	Nominal Value	Unit	Test Method
Flexural Strength	11000	psi	ASTM D790
Flexural Strength	9570	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (73°F)	1.1	ft-lb/in	ASTM D256
Notched Izod Impact Strength <sup>3</sup> (73°F)	3.6	ft-lb/in <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact (73°F)	5.4	ft-lb/in	ASTM D4812
Unnotched Izod Impact Strength <sup>3</sup> (73°F)	9.5	ft-lb/in <sup>2</sup>	ISO 180/1U
Instrumented Dart Impact (73°F, Energy at Peak Load)	105	in-lb	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.126 in	207	°F	ASTM D648
Heat Deflection Temperature <sup>4</sup> 66 psi, Unannealed, 2.52 in Span	196	°F	ISO 75-2/Bf
Deflection Temperature Under Load 264 psi, Unannealed, 0.126 in	190	°F	ASTM D648
Heat Deflection Temperature <sup>4</sup> 264 psi, Unannealed, 2.52 in Span	172	°F	ISO 75-2/Af
CLTE - Flow (-40 to 104°F)	4.4E-5	in/in/°F	ASTM E831
CLTE - Flow (-40 to 104°F)	4.3E-5	in/in/°F	ISO 11359-2
CLTE - Transverse (-40 to 104°F)	4.2E-5	in/in/°F	ASTM E831
CLTE - Transverse (-40 to 104°F)	5.3E-5	in/in/°F	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	10 to 1.0E+5	ohm	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+6	ohm·cm	ASTM D257
Shielding Effectiveness (0.12 in)	40 to 55	dB	Internal Method

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	180	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.050 to 0.10	%
Rear Temperature	410 to 430	°F
Middle Temperature	450 to 470	°F
Front Temperature	490 to 510	°F
Processing (Melt) Temp	460 to 490	°F
Mold Temperature	160 to 200	°F
Back Pressure	25.0 to 50.0	psi
Screw Speed	30 to 60	rpm

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### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 2.0 in/min

<sup>3</sup> 80\*10\*4

<sup>4</sup> 80\*10\*4 mm

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