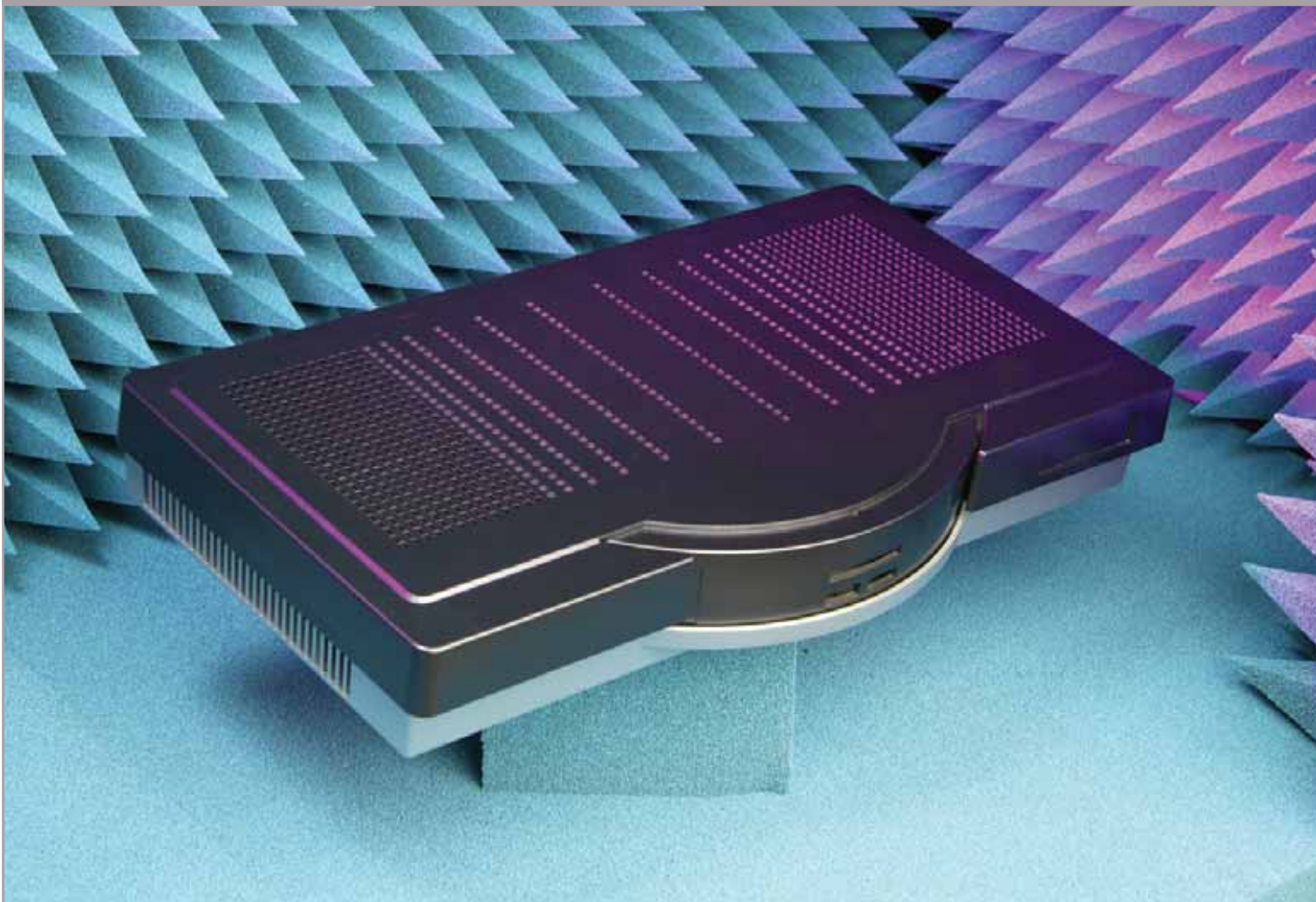


LNP* Specialty Compounds



LNP Faradex* DS-1003 FR HI compound

Key benefits of Faradex* DS-1003 FR HI

LNP* Faradex DS-1003 FR HI stainless steel filled compounds provide EMI shielding with enhanced impact performance

Since electro-magnetic interference (EMI) has been recognized as an environmental pollutant, electrical and electronic devices need to meet increasingly tougher standards.

There are a number of ways to improve the electro magnetic compatibility (EMC) of a device, such as conductive surface or metal enclosures. However, SABIC Innovative Plastics offers an alternative approach to shield against EMI with its Faradex DS-1003 FR HI. This stainless steel filled compound uses the proprietary Lexan* EXL resin technology.

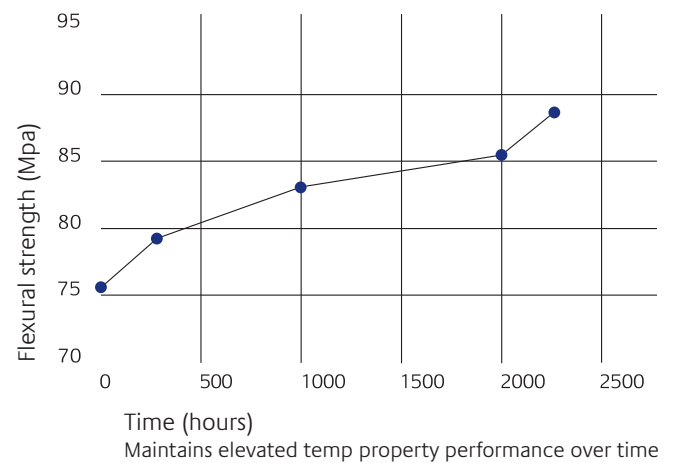
Faradex DS-1003 FR HI can be a more cost-effective systems shielding solution while providing an increased reliability vs. typical coating methods.

Key benefits of Faradex DS-1003 FR HI

- EMI shielding effectiveness
- Custom colorable
- Improved reliability over coating methods since shielding is not affected by surface damage
- Versus standard DS-1003 FR
- Enhanced impact performance at low and elevated temperatures
- Excellent flow characteristics
- UL 94 V-0 at 2.1 mm, non-brominated non-chlorinated FR system.

Flexural aging performance

LNP Faradex DS-1003 FR HI compound
Flexural strength aging, 80°C/85%RH



Typical property data of LNP Faradex DS-1003 FR HI compound

Property	Test method	Units English	SI	Faradex DS-1003 FR HI	
Physical					
Specific gravity	ISO 1183	-	-	1.29	1.29
Mechanical					
Tensile strength @ break	ISO 527-1	psi	MPa	7,980	55
Tensile elongation @ break	ISO 527-1	%	%	6	6
Flexural strength	ISPO 178	psi	MPa	11,600	80
Flexural modulus	ISPO 178	psi	GPa	377,000	2.6
Izod impact	ISPO 180	ft.-lb./in. ²	kJ/m ²	40.4	11
Unnotched impact	ISPO 180	ft.-lb./in. ²	kJ/m ²	5.23	85
Thermal					
HDT @ 1.80 MPa	ISO 75A-1	°F	°C	257	125
CLTE	ISO 11359-1	x10 ⁻⁵ 1/°C	x10 ⁻⁵ 1/°C	3.7	6.7
UL recognition		UL 94	UL 94	V-0 @ 2.1mm	V-0 @ 2.1mm
Electrical					
Surface resistivity	ASTM D4496	Ohm/sq	Ohm/sq	10 ³	10 ³
Shielding effectiveness far field at 3mm	ASTM D4935-99	dB	dB	50	50

Target market opportunities for LNP* Faradex* DS compound

Shielding effectiveness

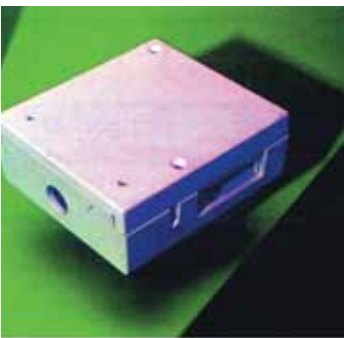
Faradex EMI range	Shielding effectiveness	Energy transmitted	Rating	Required for
	10 dB	10%	Insufficient	
	20 dB	1%	Moderate	
	30 dB	0.1%	Minimal	
	40 dB ^A	0.01%	Normal	Notebooks, desktops, flat panel displays
	50 dB	0.001%	Good	
	60 dB	0.0001%	Good	Servers/workstations, telecom devices
	70 dB	0.00001%	Excellent	
	80 dB	0.000001%	Excellent	High-end telecom devices
>90 dB	0.0000001%	Outstanding	Anechoic room, microwave oven	

^AFaradex DS-1003 FR HI attenuation under far field

Shielding effectiveness depends on

- Nature of electromagnetic fields
- Conductivity of the material
- Wall thickness of the part
- Design of the enclosures
- Presence of joints
- Frequency

Target market opportunities for LNP Faradex DS compound



Application: LAN connection box
 Product: Faradex DS compound
 Faradex DS compound's ability to be custom colored enhances the opportunity for demanding applications with appearance requirements. In addition, the improved design flexibility over metal makes it a good candidate for enclosure applications.



Application: smoke detector housing
 Product: Faradex DS compound
 Faradex DS compound provides shielding effectiveness in complex designed parts. This attribute, coupled with flame retardancy, makes it a good candidate for building and construction applications.



Application: base band box,
 Product: LNP Faradex DS compound-1003 FR HI
 Faradex DS compound-1003 FR HI is an excellent candidate for this application as it provides weight savings over metal for overall system savings. The combination of toughness and greater than 40 dB attenuation make it a good shielding solution.

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