

## LNP\* Faradex\* Compound ES003E

Americas: COMMERCIAL

Also known as: EMI-X ES-1003 EM  
Product Reorder Name: ES003E

LNP\* Faradex\* ES003E is a Polyetherimide resin containing stainless steel fibers. Characteristics of this grade are EMI/RFI Shielding.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
	Value	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	105	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	105	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Modulus, 50 mm/min	4660	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	4590	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	99	MPa	ISO 527
Tensile Stress, break, 5 mm/min	98	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4	%	ISO 527
Tensile Strain, break, 5 mm/min	4.3	%	ISO 527
Tensile Modulus, 1 mm/min	4340	MPa	ISO 527
Flexural Stress	155	MPa	ISO 178
Flexural Modulus, 2 mm/min	4310	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	485	J/m	ASTM D 4812
Izod Impact, notched, 23°C	34	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	7	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	190	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	180	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	4.4E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	194	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	177	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.46	-	ASTM D 792
Density	1.46	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.19	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.8 - 1	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.27	%	ISO 62
<b>ELECTRICAL</b>			
Surface Resistivity	2.E+00 - 4.E+00	Ohm	ASTM D 257

Source GMD, last updated:08/22/2008

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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