LNP™ FARADEX™ Compound ES003E

Americas: COMMERCIAL

Also known as: LNP™ FARADEX™ Compound EMI-X ES-1003 EM
Product reorder name: ES003E

LNP FARADEX ES003E is a Polyetherimide resin containing 15% Stainless Steel Fibers. Added feature of this grade is: EMI/RFI Shielding.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	1070	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1070	kgf/cm²	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	47500	kgf/cm²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	46800	kgf/cm²	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
IMPACT			
Izod Impact, unnotched, 23°C	49	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Multiaxial Impact	13	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	77	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
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

(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.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

LNP™ FARADEX™ Compound ES003E

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
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
PHYSICAL			
Specific Gravity	1.46	-	ASTM D 792
Density	1.46	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.19	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.8 - 1	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.27	%	ISO 62
ELECTRICAL			
Surface Resistivity	2.E+00 - 4.E+00	Ohm	ASTM D 257
Shielding Effectivness @ 2.5mm	60	dB	SABIC Method

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