LNP™ FARADEX™ COMPOUND ES003E

EMI-X ES-1003 EM

DESCRIPTION

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

TYPICAL PROPERTY VALUES

Revision 20191211

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
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
IMPACT			
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/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
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	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

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Volume Resistivity	8.9E+01	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+00 – 3.E+00	Ohm	ASTM D 257
Shielding Effectivness @ 2.5mm	60	dB	SABIC method

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