

**Product Texts**

LNP FARADEx ES003E compound is based on Polyetherimide (PEI) resin containing 15% stainless steel fiber. Added features of this grade include: Electrically Conductive, EMI/RFI shielding, Easy Molding.

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ASTM Data</b>			
Mold Shrinkage, MD	0.7	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.9	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	4340	MPa	ISO 527
Yield stress	99	MPa	ISO 527
Yield strain	4	%	ISO 527
Stress at break	98	MPa	ISO 527
Strain at break	4.3	%	ISO 527
Flexural modulus	4310	MPa	ISO 178
Flexural strength	155	MPa	ISO 178
Izod impact strength, +23°C, 4mm	33	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	5	kJ/m <sup>2</sup>	ISO 180/1A

<b>ASTM Data</b>			
Tensile Modulus	4660	MPa	ASTM D 638
Tensile Strength at Yield	105	MPa	ASTM D 638
Tensile Strength at Break	105	MPa	ASTM D 638
Elongation at Yield	4.8	%	ASTM D 638
Elongation at Break	5	%	ASTM D 638
Flexural Modulus	4590	MPa	ASTM D 790
Izod Impact notched, 1/8 in	34	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	485	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	177	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	194	°C	ISO 75-1/-2
<b>ASTM Data</b>			
Coefficient of Thermal Expansion, MD	40	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	43.9	E-6/K	ASTM D 696
DTUL @ 66 psi	190	°C	ASTM D 648
DTUL @ 264 psi	180	°C	ASTM D 648

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Surface Resistivity	1000	Ohm	ASTM D 257
Volume Resistivity	89	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Humidity absorption	0.27	%	Sim. to ISO 62
Water Absorption, 24hr	0.19	%	ASTM D 570
Density	1460	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	150	°C	-
Pre-drying - Time	4 - 6	h	-
Processing humidity	≤0.02	%	-
Melt temperature	360 - 400	°C	-
Mold temperature	140 - 180	°C	-
Zone 1	360 - 380	°C	-
Zone 2	370 - 390	°C	-

**LNP™ FARADEx™ Compound ES003E**

PEI-MEF(x)15

Saudi Basic Industries Corporation (SABIC)

Zone 3	<b>380 - 400</b>	°C	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Features**

EMI Attenuation/Shielding

**Special Characteristics**

Increased electrical conductivity

**Regional Availability**

North America, Europe, Asia Pacific