



LNP™ FARADEx™ Compound PS003E

Asia Pacific: COMMERCIAL

Also known as: LNP™ FARADEx™ Compound PS-1003

Product reorder name: PS003E

LNP FARADEx PS003E is a compound based on Nylon 6 resin containing Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	55	MPa	ASTM D 638
Tensile Stress, break	55	MPa	ASTM D 638
Tensile Strain, yield	9.6	%	ASTM D 638
Tensile Strain, break	23	%	ASTM D 638
Tensile Modulus, 50 mm/min	3150	MPa	ASTM D 638
Flexural Stress	82	MPa	ASTM D 790
Flexural Modulus	2310	MPa	ASTM D 790
Tensile Stress, yield	53	MPa	ISO 527
Tensile Stress, break	53	MPa	ISO 527
Tensile Strain, yield	3.3	%	ISO 527
Tensile Strain, break	8.6	%	ISO 527
Tensile Modulus, 1 mm/min	3000	MPa	ISO 527
Flexural Stress	81	MPa	ISO 178
Flexural Modulus	2400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	389	J/m	ASTM D 4812
Izod Impact, notched, 23°C	42	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	2	J	ASTM D 3763
Izod Impact, unnotched 80°*10*4 +23°C	43	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	186	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	62	°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:

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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -40°C to 40°C, flow	7.02E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.56E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.95E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.28E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	171	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	58	°C	ISO 75/Af
PHYSICAL			
Density	1.22	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	1.3	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	72	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	100	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.72	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1	%	ISO 294
Density	1.22	g/cm ³	ISO 1183
ELECTRICAL			
Volume Resistivity	1.E+04	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+03	Ohm	ASTM D 257

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