SABIC Innovative Plastics™

LNP* Faradex* Compound NS003

Americas: COMMERCIAL

Also known as: PCA-S-1003
Product Reorder Name: NS003

LNP* Faradex* NS003 is a compound based on PC+ABS Blend resin containing Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	52	MPa	ASTM D 638
Tensile Stress, break	49	MPa	ASTM D 638
Tensile Strain, yield	3.3	%	ASTM D 638
Tensile Strain, break	4.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	3100	MPa	ASTM D 638
Flexural Stress	89	MPa	ASTM D 790
Flexural Modulus	2990	MPa	ASTM D 790
Tensile Stress, yield	50	MPa	ISO 527
Tensile Stress, break	46	MPa	ISO 527
Tensile Strain, yield	3.5	%	ISO 527
Tensile Strain, break	6	%	ISO 527
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Flexural Stress	86	MPa	ISO 178
Flexural Modulus	2800	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	573	J/m	ASTM D 4812
Izod Impact, notched, 23°C	74	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	120	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	105	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.74E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Density	1.24	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.35	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.35	%	ISO 294

Density	1.21	g/cm³	ISO 1183
ELECTRICAL	Value	Unit	Standard
Volume Resistivity	- 1.E+04	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+01 - 1.E+03	Ohm	ASTM D 257
Shielding Effectivness @ 3mm	50 - 65	dB	SABIC Method

Source GMD, last updated:02/27/2007

Processing

Parameter Injection Molding	Value	Unit
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	220 - 260	°C
Front - Zone 3 Temperature	245 - 255	°C
Middle - Zone 2 Temperature	230 - 245	°C
Rear - Zone 1 Temperature	220 - 230	°C
Mold Temperature	40 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

Source GMD, last updated:02/27/2007

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.