+135-3858-6433 (GuangDong)
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LNP™ FARADEX™ Compound AS003

Americas: COMMERCIAL

Also known as: LNP™ FARADEX™ Compound AS-1003
Product reorder name: AS003

LNP* FARADEX* AS003 is a compound based on ABS resin containing 15% Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	420	kgf/cm²	ASTM D 638
Tensile Stress, break	400	kgf/cm²	ASTM D 638
Tensile Strain, yield	2.6	%	ASTM D 638
Tensile Strain, break	6.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	32200	kgf/cm²	ASTM D 638
Flexural Stress	770	kgf/cm²	ASTM D 790
Flexural Modulus	31000	kgf/cm²	ASTM D 790
Tensile Stress, yield	38	MPa	ISO 527
Tensile Stress, break	37	MPa	ISO 527
Tensile Strain, yield	2.2	%	ISO 527
Tensile Strain, break	2.8	%	ISO 527
Tensile Modulus, 1 mm/min	2700	MPa	ISO 527
Flexural Stress	66	MPa	ISO 178
Flexural Modulus	2800	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	31	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	152	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	18	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	88	°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.

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THERMAL			
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	7.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.3E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	78	°C	ISO 75/Af
PHYSICAL			
Density	1.16	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.27	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.39	%	ISO 294
Density	1.15	g/cm³	ISO 1183
ELECTRICAL			
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

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(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05 - 0.1	%
Melt Temperature	240 - 255	°C
Front - Zone 3 Temperature	255 - 265	°C
Middle - Zone 2 Temperature	230 - 245	°C
Rear - Zone 1 Temperature	210 - 220	°C
Mold Temperature	70 - 95	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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