LNP™ FARADEX™ COMPOUND AS003

AS-1003

DESCRIPTION

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 PROPERTY VALUES

Revision 20200210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	42	MPa	ASTM D 638
Tensile Stress, break	39	MPa	ASTM D 638
Tensile Strain, yield	2.6	%	ASTM D 638
Tensile Strain, break	6.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	3150	MPa	ASTM D 638
Flexural Stress	75	MPa	ASTM D 790
Flexural Modulus	3040	MPa	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	307	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	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
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	0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, flow, 24 hrs	0.27	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	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
Static Decay, 5000V to <50V	0.01	< seconds	FTMS101B
Shielding Effectivness @ 3mm	50 – 65	dB	SABIC method
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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