LNP™ FARADEX™ COMPOUND DS0036I

DS-1003 FR HI
REGION EUROPE

DESCRIPTION

LNP FARADEX DS0036I is a compound based on Polycarbonate resin containing 15% Stainless Steel. Added features of this material include: Electrically Conductive, EMI/RFI Shielding, High Impact, Non-Brominated & Non-Chlorinated Flame Retardant.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	59	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	2550	MPa	ASTM D 638
Tensile Stress, yield, 5 mm/min	57	MPa	ISO 527
Tensile Stress, break, 5 mm/min	55	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.8	%	ISO 527
Tensile Strain, break, 5 mm/min	4 – 8	%	ISO 527
Tensile Modulus, 1 mm/min	2800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1790	J/m	ASTM D 4812
Izod Impact, notched, 23°C	124	J/m	ASTM D 256
Izod Impact, notched, -40°C	80	J/m	ASTM D 256
Multiaxial Impact	29	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	85	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	11	kJ/m²	ISO 180/1A
THERMAL			
CTE, 23°C to 60°C, flow	5.7E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	6.8E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	125	°C	ISO 75/Af
Relative Temp Index, Elec (1)	80	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	110	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	115	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.4 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.6	%	ISO 294
Density	1.29	g/cm³	ISO 1183
Water Absorption, 23°C/24hrs	0.13	%	ISO 62-1

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Volume Resistivity	10000 – 1000000	Ohm-cm	ASTM D 257
Surface Resistivity	1.E+02 – 1.E+04	Ohm	ASTM D 257
Static Decay, 5000V to <50V	0.01	< seconds	FTMS101B
Shielding Effectivness @ 3mm	40 – 55	dB	SABIC method
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E45329-101343783	-	-
UL Yellow Card Link 2	E45329-101343784	-	-
UL Recognized, 94-5VA Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥2	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.6	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	95 – 120	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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