LNP™ FARADEX™ Compound DS0036IW

BIO COMPATIBLE

DESCRIPTION

LNP FARADEX DS0036I compound is based on Polycarbonate (PC) resin containing 15% stainless steel fiber. Added features of this grade include: Electrically Conductive, EMI/RFI shielding, High Impact, Non-Brominated & Non-Chlorinated Flame Retardant and Bio Compatible.

GENERAL INFORMATION	
Features	Flame Retardant, Biocompatible, Electrically Conductive, EMI/RFI Shielding, Non Cl/Br flame retardant, Impact resistant
Fillers	Stainless Steel Fiber
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

TYPICAL PROPERTY VALUES

Revision 20261113

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	59	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	53	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	5.1	%	ASTM D638
Tensile Modulus, 5 mm/min	2250	MPa	ASTM D638
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 [1]			
Izod Impact, Unnotched			
23°C	1790	J/m	ASTM D4812
80*10*4 +23°C	85	kJ/m²	ISO 180/1U
Izod impact, notched			
23°C	124	J/m	ASTM D256
-40°C	80	J/m	ASTM D256
80*10*4 +23°C	14	kJ/m²	ISO 180/1A
80*10*4 -40°C	11	kJ/m²	ISO 180/1A
Multiaxial Impact	29	J	ISO 6603
THERMAL [1]			
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

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL [1]			
Mold Shrinkage on Tensile Bar, flow [2]	0.4 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ISO 294
Density	1.29	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.13	%	ISO 62-1
ELECTRICAL [1]			
Volume Resistivity [3]	1.E+04 – 1.E+06	Ω.cm	ASTM D257
Surface Resistivity [3]	1.E+02 – 1.E+04	Ω	ASTM D257
Static Decay, 5000V to <50V	<0.01	Seconds	FTMS101B
Shielding Effectivness @ 3mm	40 – 55	dB	SABIC method
INJECTION MOLDING [4]			
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) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) 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.

(3) Measurement meets requirements as specified in ASTM D4496.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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