LNP™ FARADEX™ NS0031 compound

Polycarbonate + ABS

SABIC Innovative Plastics Asia Pacific

Message:

Faradex NS0031 is a compound based on PC+ABS blend resin containing non-brominated and non-chlorinated flame retardant system, Stainless Steel. Added features of this material include: EMI/RFI Shielding and ESD.

General Information	
UL YellowCard	E207780-101282733
Filler / Reinforcement	Stainless Steel Fiber
Additive	Flame Retardant
Features	Bromine Free Chlorine Free Electromagnetic Shielding (EMI) ESD Protection Flame Retardant Radio Frequency Shielding (RFI)
Processing Method	Injection Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.33	g/cm³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	12	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/10.0 kg)	31.0	cm³/10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.59	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.20	%	
Equilibrium, 23°C, 50% RH	0.10	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- [1]	3120	MPa	ASTM D638
--	3010	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	61.0	MPa	ASTM D638
Yield	59.5	MPa	ISO 527-2/5
Break [3]	57.6	MPa	ASTM D638
Break	55.2	MPa	ISO 527-2/5
Tensile Elongation			
Yield [4]	3.4	%	ASTM D638
Yield	3.2	%	ISO 527-2/5
Break [5]	3.7	%	ASTM D638

Break	4.4	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [6]	2970	MPa	ASTM D790
-- [7]	3100	MPa	ISO 178
Flexural Stress			
--	102	MPa	ISO 178
Yield, 50.0 mm Span [8]	95.8	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [9] (23°C)	4.1	kJ/m²	ISO 179/1eA
Notched Izod Impact			
-30°C	43	J/m	ASTM D256
23°C	55	J/m	ASTM D256
-30°C [10]	5.7	kJ/m²	ISO 180/1A
23°C [11]	5.8	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
-30°C	590	J/m	ASTM D4812
23°C	690	J/m	ASTM D4812
-30°C [12]	40	kJ/m²	ISO 180/1U
23°C [13]	40	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	0.180	J	ASTM D3763
--	7.50	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	96.1	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [14]	98.7	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	109	°C	ASTM D1525, ISO 306/B50 11 [15]
--	112	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	5.7E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	5.5E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	6.6E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	6.4E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+5	ohms	ASTM D257
Volume Resistivity	1.0E+7	ohms·cm	ASTM D257
Shielding Effectiveness (3.00 mm)	47	dB	Internal Method
Static Decay [16]	10	msec	FTMS 101B
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.50 mm, Testing by SABIC)	V-0		UL 94

Injection	Nominal Value	Unit
Drying Temperature	85.0 to 90.0	°C
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.040	%
Rear Temperature	260 to 300	°C
Middle Temperature	260 to 300	°C
Front Temperature	265 to 300	°C
Nozzle Temperature	265 to 300	°C
Processing (Melt) Temp	270 to 300	°C
Mold Temperature	60.0 to 90.0	°C
Back Pressure	4.00	MPa
Screw Speed	30 to 100	rpm

NOTE	
1.	5.0 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	80*10*4
13.	80*10*4
14.	80*10*4 mm
15.	Rate B (120°C/h), Loading 2 (50 N)
16.	5000V to <50V

Recommended distributors for this material

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