PRE-ELEC® PS 1331

Polystyrene Alloy

Premix Oy

Message:

PRE-ELEC® PS 1331 is a carbon black filled conductive polystyrene compound with elevated chemical resistance. In addition to a low electrical resistivity.
PRE-ELEC®PS 1331 has excellent mechanical properties and is easy to extrude.
PRE-ELEC®PS 1331 is suitable for sheet applications in which the requirement for chemical resistance exceeds the normal polystyrene.

General Information			
Additive	Carbon black		
Features	Conductivity Workability, good Good chemical resistance		
Uses	Sheet		
Forms	Particles		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.08	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238, ISO 1133
200°C/10.0 kg	60	g/10 min	ASTM D1238, ISO 1133
200°C/5.0 kg	1.8	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage			
Flow	0.40 - 0.60	%	ASTM D955
Flow direction	0.40 - 0.60	%	ISO 294-4
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	75		ASTM D2240, ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength			
Transverse flow: Yield	17.0	MPa	ASTM D638
Flow: Yield	31.0	MPa	ASTM D638
Transverse flow: Yield	39.0	MPa	ISO 527-2
Flow: Yield	33.0	MPa	ISO 527-2
Across Flow	17.0	MPa	ASTM D638
Flow	32.0	MPa	ASTM D638
-- [1]	40.0	MPa	ISO 527-2
0.400 mm [2]	31.0	MPa	ISO 527-2
Tensile Strain			ISO 527-2
Transverse flow: Yield	8.0	%	ISO 527-2
Flow: Yield	5.0	%	ISO 527-2
Fracture, 0.400mm [3]	34	%	ISO 527-2

Fracture, 0.400mm [4]	66	%	ISO 527-2
Flexural Modulus (4.00 mm)	1500	MPa	ASTM D790, ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5]			
-20°C	6.3	kJ/m²	ASTM D256
-20°C	8.0	kJ/m²	ISO 179
23°C	25	kJ/m²	ISO 179, ASTM D256
Charpy Unnotched Impact Strength [6]			
-20°C	67	kJ/m²	ASTM D256
-20°C	65	kJ/m²	ISO 179
23°C	No Break		ISO 179, ASTM D256
Notched Izod Impact			ASTM D256
-20°C, 4.00 mm	6.30	kJ/m²	ASTM D256
23°C, 4.00 mm	18.9	kJ/m²	ASTM D256
Notched Izod Impact [7]			ISO 180
-20°C	6.0	kJ/m²	ISO 180
23°C	20	kJ/m²	ISO 180
Unnotched Izod Impact			ASTM D256
-20°C, 4.00 mm	No Break		ASTM D256
23°C, 4.00 mm	No Break		ASTM D256
Unnotched Izod Impact Strength [8]			ISO 180
-20°C	No Break		ISO 180
23°C	No Break		ISO 180
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (0.45 MPa, Unannealed)	80.0	°C	ASTM D648B, ISO 75-2/Bf
Vicat Softening Temperature			
--	97.2	°C	ASTM D1525 [9]
--	97.0	°C	ISO 306/A50
Bending test			
-- [10]	> 1.0E+3	Cycles	
-- [11]	> 1.0E+3	Cycles	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+5	ohms	IEC 61340-2-3
Volume Resistivity	< 1.0E+4	ohms·cm	Internal method
Extrusion	**Nominal Value**	**Unit**	
Drying Temperature	60.0 - 80.0	°C	
Drying Time	3.0 - 4.0	hr	
Cylinder Zone 1 Temp.	180	°C	
Cylinder Zone 2 Temp.	200	°C	
Cylinder Zone 3 Temp.	200	°C	
Cylinder Zone 4 Temp.	210	°C	

Cylinder Zone 5 Temp.	210	°C
Extrusion instructions		
Cylinder Zone 6: 210°C		
NOTE		
1.	.4 mm Thickness, Across Flow	
2.	Flow	
3.	Across Flow	
4.	Flow	
5.	4 mm thickness	
6.	4 mm thickness	
7.	4 mm thickness	
8.	4 mm thickness	
9.	速率 A (50°C/h), 载荷2 (50N)	
10.	Across Flow, ISO 5626	
11.	Flow, ISO 5626	

Recommended distributors for this material

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