Bakelite® PF 31

Phenolic

Hexion Inc.

Message:

Product Description
Phenolic moulding compound, mainly organically filled, standard moulding compound for normal stress, UL listed moulding compound 1.5 mm / V-1 (ALL), 3.0 mm / V-0 (ALL), standardized moulding compound
Application Areas
Mouldings of all kinds from screw caps to large casings, electrical installation material, handle casings (bars), pan handles, operating elements, toaster parts and pistons for braking power energizers, carbon brush holders, lamp casing parts, decor items, ashtrays

General Information	
Filler / Reinforcement	Organic
Uses	Appliance Components Caps Decorative Parts Handles
Processing Method	Compression Molding Injection Molding

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.42	g/cm³	ISO 1183
Apparent Density	0.65	g/cm³	ISO 60
Molding Shrinkage			ISO 2577
-- [1]	0.45	%	
-- [2]	0.85	%	
Water Absorption - 24h/23C	65.0	mg	ISO 62
Post Shrinkage			ISO 2577
-- [3]	0.55	%	
-- [4]	0.45	%	
Compression Molding Molding Pressure	> 15.0	MPa	
Compression Molding Temperature	160 to 190	°C	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness (H 961/30)	300	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	7500	MPa	ISO 527-2/1
Tensile Stress	50.0	MPa	ISO 527-2/5
Flexural Modulus	7500	MPa	ISO 178
Flexural Stress [5]	95.0	MPa	ISO 178
Compressive Stress	250	MPa	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**

Charpy Notched Impact Strength (23°C)	1.5	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	7.0	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (8.0 MPa, Unannealed)	120	°C	ISO 75-2/C
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+11	ohms·cm	IEC 60093
Electric Strength [6] (1.00 mm)	23	kV/mm	IEC 60243-1
Relative Permittivity (100 Hz)	11.0		IEC 60250
Dissipation Factor (100 Hz)	0.30		IEC 60250
Comparative Tracking Index (Solution A)	125	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
1.50 mm, All	V-1		
3.00 mm, All	V-0		
Injection	**Nominal Value**	**Unit**	
Rear Temperature	60.0 to 75.0	°C	
Nozzle Temperature	80.0 to 100	°C	
Processing (Melt) Temp	80.0 to 100	°C	
Mold Temperature	160 to 190	°C	
Injection Pressure	> 15.0	MPa	
Back Pressure	0.500 to 2.00	MPa	
NOTE			
1.	Compression		
2.	Injection		
3.	Injection		
4.	Compression		
5.	2.0 mm/min		
6.	short term, electrode layout P25mm/P25mm in transformer oil equivalent to IEC 60296		

Recommended distributors for this material

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