Bakelite® UP 3720

Thermoset Polyester

Hexion Inc.

Message:

Product Description
Polyester moulding compound, mainly organically filled, styrene free, very slight post shrinkage, very good electrical properties, very good sliding friction properties, dimensionally stable, UL listed moulding compound 0,8 mm / V1 (ALL), 1,5 mm / V-0 (ALL)
Application Areas
Bearings, guide rails, crossbars, micro switches, regulator switch cylinders

General Information	
Filler / Reinforcement	Organic
Features	Arc Resistant Good Dimensional Stability Good Electrical Properties Low Shrinkage
Uses	Bearings Switches
Processing Method	Compression Molding Injection Molding

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.75	g/cm³	ISO 1183
Apparent Density	0.64	g/cm³	ISO 60
Molding Shrinkage			ISO 2577
-- [1]	0.35	%	
-- [2]	0.70	%	
Water Absorption - 24h/23C	45.0	mg	ISO 62
Post Shrinkage			ISO 2577
-- [3]	0.15	%	
-- [4]	0.10	%	
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)	250	MPa	ISO 2039-1

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9000	MPa	ISO 527-2/1
Tensile Stress	45.0	MPa	ISO 527-2/5
Flexural Modulus	8000	MPa	ISO 178

Flexural Stress [5]	90.0	MPa	ISO 178
Compressive Stress	250	MPa	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	2.2	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	9.0	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (8.0 MPa, Unannealed)	75.0	°C	ISO 75-2/C
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+12	ohms·cm	IEC 60093
Electric Strength [6] (1.00 mm)	33	kV/mm	IEC 60243-1
Relative Permittivity (100 Hz)	5.00		IEC 60250
Dissipation Factor (100 Hz)	0.025		IEC 60250
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.800 mm, All	V-1		
1.50 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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