

Technical Data Sheet

Bakelite® UP 3710

Product Description

Polyester moulding compound, mainly organically filled, styrene free, very slight post shrinkage, very good electrical properties, very good sliding friction properties, halogen and heavy metal free, dimensionally stable, UL listed moulding compound 3,0 m

Application Areas

Bearings, guide rails, crossbars, micro switches, regulator switch cylinders

Typical Properties

Bakelite UP 3710

<https://www.hexion.com/en-US/product/bakelite-up-3710>

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Property	Value	Unit	Standard
Apparent Density	0,6	g/cm ³	ISO 60
Ball Indentation Hardness H961/30	0	MPa	ISO 2039/P1
Charpy Impact Strength 23°C	0	kJ/m ²	ISO 179-1 eU
Charpy Notched Impact Strength 23°C	2,0	kJ/m ²	ISO 179-1 eA
Compression - Moulding shrinkage	0,55	%	ISO 2577
Compression - Post shrinkage	0,25	%	ISO 2577
Compressive Strength Test Specimen Flat Tested	250	MPa	ISO 604
Density 23°C	1,68	g/cm ³	ISO 1183
Dissipation Factor 100 Hz, Following IEC 60250	0,025		
Electric Strength 1mm Thickness, Short Term, Electrode Layout P25mm/P25mm in Transformer Oil Equivalent to IEC 60296	30	kV/mm	IEC 60243-P1
Flexural Modulus	7500	MPa	ISO 178
Flexural Strength 2mm/min	85	MPa	ISO 178
Injection - Moulding Shrinkage	0	%	ISO 2577
Injection - Post Shrinkage	0	%	ISO 2577
Proof Tracking Index Test Liquid A	600	PTI	IEC 60112
Relative Permittivity 100 Hz, Following IEC 60250	5,0		
Surface Resistivity Following IEC 60093	1E+11	Ohm	
Temp. of Deflection Under Load HDT C-8,0 MPa	65	°C	ISO 75-2
Tensile Modulus 1mm/min, Elongation e1 0,05%; e2 0,25%		MPa	ISO 527 - 1/2
Tensile Strength 5mm/min	0	MPa	ISO 527 - 1/2
Volume Resistivity	1E+12	Ohm*cm	
Water Absorption 24h / 23°C, Following ISO 62	65	mg	

Preparation of Test Specimens of Thermosetting Moulding Compound

- Compression to ISO 295
- Injection to ISO 10724

Moulding Conditions

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Property	Value	Unit
Cavity Moulding Pressure	>15	MPa
Curing Time (per mm of Wall Thickness)	20 - 40	s
Mould Temperature	160 - 190	°C

Property	Value	Unit
Back Pressure	0,5 - 2	MPa
Barrel Temperature - Feed Zone	60 - 75	°C
Barrel Temperature - Nozzle Zone	80 - 100	°C
Cavity Moulding Pressure	>15	MPa
Curing Time per mm of Wall Thickness	10 - 20	s
Holding Pressure	injection pressure	ca. 60%
Mould Temperature	160 - 190	°C
Temperature of Material	80 - 100	°C

Storage Capability

2 years (relative humidity of 50-60% and maximum storage temperature of approximately 20°C)

Contact Information

Hexion GmbH
 Gennaer Str. 2-4
 Germany 58642 Iserlohn-Letmathe
 e-mail: molding-compounds@hexion.com
 Internet: www.hexion.com

Postfach 7154
 Germany 58609 Iserlohn-
 Letmathe
 Tel.: +49 (0) 2374 / 925 280
 Fax: +49 (0) 2374 / 925 723