

Bakelite® PF 31

Typical Physical Properties			
Property	Standard	Typical Value	Unit
* Density (23°C)	ISO 1183	1,42	g/cm3
Apparent density (moulding compound)	ISO 60	0,60	g/cm3
Injection - Moulding shrinkage	ISO 2577	0,8	%
Injection - Post shrinkage	ISO 2577	0,55	%
Compression - Moulding shrinkage	ISO 2577	0,45	%
Compression - Post shrinkage	ISO 2577	0,45	%
* Tensile strength * (5mm/min)	ISO 527 - 1/2	50	MPa
* Tensile modulus * (1mm/min) (Elongation _{ε1} 0,05%; ε2 0,25%)	ISO 527 - 1/2	7.500	MPa
Compressive strength (test specimen flat tested)	ISO 604	250	MPa
Flexural strength (2mm/min)	ISO 178	95	MPa
Flexural modulus	ISO 178	7500	MPa
* Charpy impact strength (23°C)	ISO 179-1 eU	7	kJ/m2
* Charpy notched impact strength (23°C)	ISO 179-1 eA	1,5	kJ/m2
Ball indentation hardness (H961/30)	ISO 2039/P1	320	MPa
* Temp. of deflection under load. HDT C-8,0 MPa	ISO 75-2	120	°C
* Surface resistivity (Following IEC 60093)		1,00E+10	Ohm
* Volume resistivity (Following IEC 60093)		1,00E+11	Ohm*cm
* Dissipation factor (100 Hz) (Following IEC 60250)		0,3	
* Relative permittivity (100 Hz) (Following IEC 60250)		11	
* Electric strength (1mm thickness) (short term, electrode layout P25mm/P25mm in transformer oil equivalent to IEC 60296)	IEC 60243-P1	22	kV/mm
Proof tracking index (Test liquid A)	IEC 60112	125	PTI
Flammability UL 94 (ALL=all colours, BG=beige, BK=black, BN=brown, BL=blue, GN=green, GY=grey, NC=natural, OR=orange, RD=red, WT=white, YL=yellow)	UL 94	V-1 / 1,5mm (ALL) V-0 / 3,0mm (ALL)	Step/mm
Water absorption (24h / 23°C) (Following ISO 62)		60	mg
Additional Characteristic		UL, Typ	

Explanation for Additional Characteristic:

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|--|---|
| .5 - Improved electric properties | HT - Resistance to high temperatures |
| .7 - Allowed for contact with food | LB - High arc resistance |
| .9 - Ammonia free | M - Dishwasher proof |
| A - High surface quality moulding | P - Production of test spec. only comp. |
| Cu - Copper adhesive | T - Low coefficient of friction |
| D - Low shrinkage/good dimensional stability | Typ - Standardized moulding compound |
| E - Elastified | UL - UL listed moulding compound |
| EL - For electrostatic coating | UV - Non fade |
| ES - Acetic acid free | V - Yellowing resistance |
| G - Galvanize | Z - Special presentation cyl. pellets |
| HS - High mechanical strength | L - Conductive |

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

Preparation of Test Specimens of Thermosetting Moulding Compound

- Compression to ISO 295
- Injection to ISO 10724

Storage Capability

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

Moulding Conditions			
Injection Moulding		Compression Moulding	
Temperature of material	80 - 100°C	Mould temperature	160 - 190°C
Mould temperature	160 - 190°C	Curing time (per mm of wall thickness)	20 - 40 s
Curing time (per mm of wall thickness)	10 - 20 s	Cavity moulding pressure	>15 MPa
Barrel temperature - feed zone	60 - 75°C		
Barrel temperature - nozzle zone	80 - 100°C		
Cavity moulding pressure	>15 Mpa		
Back pressure	0,5 - 2 Mpa		
Holding pressure	ca. 60% of injection pressure		

Properties marked with * are elements of the database CAMPUS (Computer Aided Material Preselection by Uniform Standards) and based on the obliging introduced guidelines of the norm committee of plastic.

(CAMPUS is a registered trademark of the CWFG.)

Contact Information

Hexion GmbH

Gennaer Str. 2-4

Germany 58642 Iserlohn-Letmathe

e-mail: moulding-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

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