

# Laminates



## DURAPOL M602 SMC

- Suitable for parts with high mechanical, thermal and electrical load
- Better than UP GM 205 according to IEC 60893-3-5
- Flammability acc. to UL 94 V-0 from 5 mm thickness
- Halogen free
- Dimensionally stable at higher temperature

### General Description

DURAPOL M602 SMC consists of special polyester resin with reinforcement of chopped glass fibers and glass roving fabric.

### Color

RAL 6019

### RoHS Directive

Hazardous products listed in the EU-directive 2011/65/EU (RoHS-directive), annex II, are not used as ingredients in this material.

### Application

Insulation parts for rotating electrical machines.  
Thermal decoupling of tools for injection molding machines.  
Transformers

### Form of delivery

Sheet size 2.000 x 1.250 mm +2 / -3mm (untrimmed)  
Sheet thicknesses from 3 mm to 60 mm  
Thickness tolerance acc. to IEC 60893-3-5

### Machining

Machinable with diamond tools.

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty - expressed or implied - including, without limitation, warranties of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.

VRI Composites custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.

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**DURAPOL M602 SMC**

	Unit	Value	Test norm
<b>Mechanical properties</b>			
Flexural strength	MPa	350	ISO 178
Modulus of elasticity	MPa	20000	ISO 178
Flexural strength at 150°C	MPa	210	ISO 178
Modulus of elasticity at 150°C	MPa	14000	ISO 178
Impact strength (Charpy), //	kJ/m <sup>2</sup>	160	ISO 179
Compressive strength $\perp$ , at 23°C	MPa	530	ISO 604
Tensile strength //, at 23°C	MPa	210	ISO 527
Bonding strength	N	2500	DIN 53453
<b>Electrical properties</b>			
Insulation resistance after immersion in water	Ohm	1.0E+12	IEC 62631-3-3
Breakdown voltage //, 90°C in oil	kV	90	IEC 60243-1
Electric strength $\perp$ , 90°C in oil	kV/mm	13	IEC 60243-1
Comparative tracking index (CTI)		600	IEC 60112
<b>Thermal properties</b>			
Temperature index (TI)	°C	155	IEC 60216
<b>Physical properties</b>			
Density	g/cm <sup>3</sup>	1.9 – 2.0	ISO 1183
Water absorption, t = 4 mm	%	< 0.1	ISO 62
<b>Other properties</b>			
Flammability	V-0	≥ 5 mm	UL 94