

## M57

## SHEET

**Composite:** glass mat – epoxy resin

**Color:** yellow-beige

**Standards:** IEC 893 EPGM203 – EPGM305

### CHARACTERISTICS AND APPLICATIONS

Composite with good mechanical and dielectric properties at high temperatures . Insulating class H. Alogen free.

#### Mechanical properties

<b>Flexural strenght</b>	(ISO 178)	320 MPa
<b>Modulus of elasticity</b>	(ISO 178)	15000 MPa
<b>Compressive strenght</b>	(ISO 604)	300 MPa
<b>Izod impact strenght</b>	(ISO 108)	54 kJ/m <sup>2</sup>
<b>Tensile strenght</b>	(ISO 527)	250 MPa

#### Electrical Properties

<b>Electrical strenght at 90°C,in oil, perpendicular to lamination</b>	(IEC 243-1)	9 kV/mm	(2 mm)
<b>Break down voltage, at 90°C in oil, parallel to laminations</b>	(IEC 243-1)	35 kV	
<b>Permittivity at 48-62 Hz</b>	(IEC 250)	5,5	
<b>Dissipation factor at 48-62 Hz</b>	(IEC 250)	0,04	

## Physical and thermal properties

<b>Density</b>	(ISO 1183)	1,8-1,9 gr/cc
<b>Water absorption</b>	(ISO 62)	28 mg
<b>thermal conductivity</b>	(ISO 8302)	0,3 W/mK
<b>linear expansion coefficient</b>	(VDE 0304/2)	10-20 $10^{-6} K^{-1}$
<b>Max working temperature</b>	(ISO 11357-2)	180°C
<b>Insulating class</b>	(CEI)	H

Note: Above listed features are the result of tests performed in FILP internal laboratory and on products obtained from current production. Deviations from average values on these material may normally occur. Suggestion and indications to final user are provided just to draw user's attention to check the product features on his own. User has to test the product to determine its suitability to the required application.

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