composite, tubes and laminates

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M36 SHEET

Composite: glass cloth –modified epoxy resin

Color: red-brown

Standards:	IEC 893	EPGC 204 - EPGC308
	DIN 7735	Hgw 2372.2
	NEMA LI1	FR5

CHARACTERISTIC AND APPLICATIONS

Composite with good mechanical and dielectric properties at high temperatures. Insulating class H. Halogen free. M36 has auto extinguishing properties (V0-UL94) and anti-tracking characteristic. Classified HL1 for R22 ed HL1-HL2 for R23 to fire-behavior requirements as per standard EN 45545-2:2013. Classified in conformity at all levels of risk for electrical materials and electrical components as per standard UNI CEI 1170-3 Ed.2005 + FA 2007.

Mechanical properties

Flexural strength	(ISO 178)	450 MPa
Modulus of elasticity	(ISO 178)	26000 MPa
Compressive strength	(ISO 604)	300 MPa
Izod impact strength	(ISO 108)	50 kJ/m2
Tensile strength	(ISO 527)	450 MPa

Electrical Properties

Electrical strength at 90°C, in oil, perpendicular to lamination	(IEC 243-1)	15 kV/mm	(2 mm)
Break down voltage, at 90°C in oil, parallel to laminations	(IEC 243-1)	60 kV	
Permittivity at 48-62 Hz	(IEC 250)	5,5	
Dissipation factor at 48-62 Hz	(IEC 250)	0,04	
Comparative tracking index	(IEC 60112)	>600 V	
Dry arc resistance	(ASTM D495)	>180 sec.	

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Physical and thermal properties

Density	(ISO 1183)	1,9-2,0 gr/cc
Water absorption	(ISO 62)	0,07 % - 10 mg
thermal conductivity	(ISO 8302)	0,3 W/mK
linear expansion coefficient	(VDE 0304/2)	10-20 10-6 K-1
Max working temperature	(ISO 11357-2)	180°C
Insulating class	(CEI)	H
Flammability	(UL94)	V0

All the details on fire resistance properties can be found in EN 45545-2 and UNI CEI 1170-3 Certificates.

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 materials 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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