

CALMICAGLAS® 0879

Composition:

CALMICAGLAS® 0879 consists of mica paper based on uncalcined muscovite, glass cloth and thermosetting epoxy novolac.

Properties:

CALMICAGLAS® 0879 is a very flexible mica paper compound, which can be easily wrapped in total width by hand or taped on automatic taping machines. After curing in a hot press an insulation with excellent dielectric, thermal, mechanical, electrical and chemical properties is obtained.

Application:

CALMICAGLAS® 0879 is used for the insulation of bars and coils of motors and generators up to the highest output and nominal voltage.

Pressing cycle for 4 mm wall thickness:

Preheat: 120 °C / 30 min

Slowly lock press: 90 min / 160 °C and 60 min / 170 °C

Hot release possible.

Recommended additional materials:

EGSB 2969 0.15 mm, that is pressed together with the main wall;

CONTAFEL 0865, *alternative CONTAFEL 2716 or CONTAFEL 2912*;

VOTAFILM 2645 to achieve round corners.

Formats:

Rolls: max. width 1010 mm

Tapes: from 10 mm width upwards

Storability:

min. 6 months at 20° C

min. 12 months at 5° C

Pressing conditions:

Temperature: 130 - 180° C

Pressure: 2 - 3 N/mm²

Time: 8.0 - 0.5 hours

E. g. 1 hour. 160° C. 2 N/mm². Full curing is achieved after 4 hours at 160° C.

Technical Data (as delivered)

CALMICAGLAS® 0879			
Properties	Test method	Unit	Value
Nominal thickness		mm	0.23 ± 0.02
Total substance	IEC 371-2	g/m ²	341 ± 39
Mica paper	IEC 371-2	g/m ² / %	180 ± 17 / 51
Glass cloth	IEC 371-2	g/m ² / %	36 ± 2 / 14
Resin content	IEC 371-2	g/m ² / %	125 ± 15 / 35
Tensile strength	IEC 371-2	N/10mm	≥ 140
Volatile content (15 min 150° C)	IEC 371-2	%	≤ 0.7

Properties after pressing (4 hours at 160° C)	Test method	Unit	Value
Nominal thickness		mm	0.23
Thickness after pressing		mm	approx. 0.17
Density	ISO 1183	g/cm ²	1.8 - 2.0
Martens stability		° C	≥ 200
Thermal conductivity		W/m°K	0.25 - 0.30
Linear thermal coefficient of expansion		1/°K	approx. 10 x 10 ⁻⁶
Flexural strength at 23° C and 150° C	ISO 178	N/mm ²	≥ 200 / ≥ 150
Dielectric strength 23° C / 150° C	IEC 243 IPV 53	kV/mm	≥ 50 / ≥ 45
Dielectric constant 23 - 150° C	IEC 250		4.5 - 5.3
Tracking resistance	IEC 112		CTI 350
Dielectric loss factor at 23° C 155° C	IEC 250		≤ 10 x 10 ⁻³ typical 50 x 10 ⁻³ ≤ 100 x 10 ⁻³
Thermal classification	IEC 216	°C	155 (F)