CALMICAGLAS® 0893

Description:

CALMICAGLAS® 0893 consists of mica paper based on uncalcined muscovite, glass cloth and thermosetting epoxy novolac.

Properties:

CALMICAGLAS® 0893 is a very flexible glass mica paper combination, which can be taped easily even on tight bends.

CALMICAGLAS® 0893 when pressed gives a higher resin flow compared to type CALMICAGLAS® 2005 which enables the insulation of complex shapes. Excellent dielectric, thermal, mechanical and chemical properties are obtained after pressing.

Applications:

CALMICAGLAS® 0893 is used e. g. for the insulation of coils and bars of low and high voltage machines.

Moreover CALMICAGLAS® 0893 can be used for the fabrication of moulded parts such as commutator caps or for the fabrication of wound tubes and cylinders.

Materials:

CALMICAGLAS® 0893 consists of mica paper based on uncalcined muscovite, glass cloth and thermosetting epoxy novolac.

CALMICAGLAS® 0893 is supplied interleaved to prevent a sticking together of the layers.

Formats:

Rolls: max. width 1000 mm
Tapes: from 10 mm width upwards

Storability:

Min. 6 months at 20° C
Min. 12 months at 5° C

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A Constantia Iso AG company

Pressing condition: (e.g.: 1 hour, 160 ° C, 2 N/mm^2)

Temperature: 130 - 180° C
Time: 8.0 - 0.5 hours
Pressure: 1 - 2 N/mm²

The material is fully cured after 4 hours at 160° C.

CALMICAGLAS® 0893 is supplied interleaved.

Technical Data (as delivered)

CALMICAGLAS® 0893				
Properties	**Test method**	**Unit**	**Value**	**Value**
Nominal thickness		mm	0.18 ± 0.02	0.28 ± 0.03
Total substance	IEC 371	g/m²	243 ± 23	448 ± 30
Mica paper	IEC 371	g/m² %	120 ± 10 49	250 ± 20 55
Glass cloth	IEC 371	g/m² %	33 ± 3 14	33 ± 3 7
Resin content	IEC 371	g/m² %	90 ± 10 37	165 ± 16 36
Tensile strength	IEC 371	N/10mm	≥ 150	≥ 150
Volatile content (15 min 150° C)	IEC 371	%	≤ 0.7	≤ 0.8

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Technical Data (after pressing (4 h / 160° C)

Properties	Test method	Unit	Value	Value
Thickness		mm	approx. 0.125	approx. 0.20
Number of layers per mm			8 ± 1	5 ± 1
Density	ISO 1183	g/cm²	1.8 - 2.0	
Thermal conductivity		W/m°K	0.25 - 0.30	
Linear thermal coefficient of expansion		1/°K	appprox. 10×10^{-6}	
Flexural strength at 23° C 150° C	ISO 178	N/mm²	≥ 200 ≥ 150	
Dielectric strength (measured on plates 0.3 mm thick) 23° C 150° C	IEC 243	kV/mm	≥ 50 ≥ 45	
Dielectric constant (23 - 150° C)	IEC 250 IPV Nr.53		4.5 - 5.3	
Tracking resistance	IEC 112		CTI 350	
Dielectric loss factor 23° C 90° C 155° C	IEC 250		≤5×10^{-3} ≤25×10^{-3} ≤100×10^{-3}	≤ 10×10^{-3} ≤ 25×10^{-3} ≤ 100×10^{-3}
Thermal classification	IEC 216	°C	155 (F)	

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