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Electrical Insulation Materials

Flexiso® FI 17020

Description:

Flexiso® FI 17020 consists of mica paper based on calcined muscovite, impregnated with resin and a PET-film as carrier. The combination of mica paper and polyester film provides a high breakdown voltage and good elasticity. A good partial discharge, electrical creepage and radiation resistance can be achieved with high mica content. Flexiso® FI 17020 remains flexible after thermal treatment. This permits coils to be formed and shaped without risking damage to the conductor insulation, even after pre-consolidation of the straight part and after pressing the main insulation.

Application:

Flexiso® FI 17020 is used for insulation of rectangular copper conductors of low and high voltage coils.

Formats:

Flexiso® FI 17020 is available on rolls of a maximum width of 1000 mm and in tapes with a width from 6 mm. The standard width are 9, 12, 15 and 20 mm.

Processing Advice:

Due to the tensile strength and good elongation Flexiso® FI 17020 permits high speed taping of rectangular copper by conventional taping machines. The tape does not need heating or special bonding to the copper. Only the end has to be fixed by an adhesive tape.

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Flexiso® FI 17020

Properties	Test method	Unit	Value	Value	Value
Nominal thickness	IEC 60371-2	mm	0.06 +/-0.01	0.07 ±0.01	0.09 ±0.01
Thickness after pressing	IEC 60371-2	mm	0.050 +/-0.005	0.055 ±0.010	0.060 ±0.015
Total substance	IEC 60371-2	g/m²	90 +/-8	102 ±10	129 ±10
Mica paper	IEC 60371-2	g/m²	50 +/-2	50 ±5	75 ±8
PET-film	IEC 60371-2	g/m² µm	32 +/-4 23	42 ±4 30	42 ±4 30
Resin content	IEC 60371-2	g/m²	8 +/-2	10 ±2	12 ±3
Breakdown voltage	IEC 60243-1	kV	≥ 5	≥ 6	≥ 7
Tensile strength	IEC 60371-2	N/cm	≥ 20	≥ 20	≥ 20
Stiffness at 25°C	IEC 60371-2	N/m	≤ 25	≤ 25	≤ 30
Thermal class	IEC 60216-2		155 (F)	155 (F)	155 (F)

Please note:

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and user from own tests and inspections because of the plenty of possible effects. There is no judicial binding assurance of certain properties or of the qualification for a concrete application in our declaration. We recommend consulting us in individual cases. The acceptor of our products has to observe possible industrial property rights as well as present laws by himself.

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