

Electrical insulating material

Flexiso® 3020 FI 11020

Structure: Flexiso® 3020 FI 11020 is made from pure binder-free and unbleached sulphate pulp.

Characteristics: Flexiso® 3020 FI 11020 is calendered and has good tensile and compressive strength as well as good compatibility and impregnation with impregnating and trickle resins. Flexiso® 3020 FI 11020 is used in applications of insulation class A (105°C). Flexiso® 3020 FI 11020 complies with IEC standard P.6.1 A IEC 60641-3-2.

Application: Flexiso® 3020 FI 11020 is used in electrical applications as end insulation in stators and rotors and for bobbins in transformers.

Form of Supply: Flexiso® 3020 FI 11020 is supplied as standard in thicknesses of 0.1 to 1.0 mm. The format is supplied in rolls with a width of 1000 mm. Additional formats, blanks, die-cut and formed parts are manufactured to customer requirements and on special request.

Storage conditions: Flexiso® 3020 FI 11020 can be stored indefinitely under normal conditions (20 °C, 50% RH) and in the original packaging. The material should be protected against humidity, dryness, direct sunlight and UV radiation as well as any heat effects.

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Properties	Norm	Unit	Value					
			0.10 ± 0.01	0.15 ± 0.02	0.20 ± 0.02	0.25 ± 0.02	0.30 ± 0.03	0.40 ± 0.04
Thickness	IEC 641	mm	0.10 ± 0.01	0.15 ± 0.02	0.20 ± 0.02	0.25 ± 0.02	0.30 ± 0.03	0.40 ± 0.04
Basis Weight	IEC 641	g/m ²	120 ± 10%	180 ± 10%	240 ± 10%	300 ± 10%	360 ± 10%	480 ± 10%
Yield	IEC 641	m ² /kg	8.3	5.6	4.2	3.3	2.8	2.1
Density	IEC 641	g/m ²	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20
Moisture Content	IEC 641	%	≤8	≤8	≤8	≤8	≤8	≤8
Ash Content	IEC 641	%	≤5	≤5	≤5	≤5	≤5	≤5
Tensile Strength:								
MD	IEC 641	N/mm ²	≥65	≥65	≥65	≥65	≥65	≥65
CMD	IEC 641	N/mm ²	≥35	≥35	≥35	≥35	≥35	≥35
Elongation								
MD	IEC 641	N/10mm	≥6.5	≥6.5	≥6.5	≥6.5	≥6.5	≥6.5
CMD	IEC 641	N/10mm	≥2.5	≥2.5	≥2.5	≥2.5	≥2.5	≥2.5
Shrinkage	IEC 641	%	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Conductivity of aqueous extract	IEC 641	µS/cm	≤200	≤200	≤200	≤200	≤200	≤200
Dielectric Strength	IEC 641	kV/mm	≥8.0	≥8.0	≥8.0	≥8.0	≥10.0	≥10.0

Properties	Norm	Unit	Value					
			0.50 ± 0.05	0.60 ± 0.05	0.70 ± 0.05	0.80 ± 0.05	0.90 ± 0.05	1.00 ± 0.07
Thickness	IEC 641	mm	0.50 ± 0.05	0.60 ± 0.05	0.70 ± 0.05	0.80 ± 0.05	0.90 ± 0.05	1.00 ± 0.07
Basis Weight	IEC 641	g/m ²	600 ± 10%	720 ± 10%	840 ± 10%	960 ± 10%	1080 ± 10%	1200 ± 10%
Yield	IEC 641	m ² /kg	1.7	1.4	1.2	1.0	0.90	0.80
Density	IEC 641	g/m ²	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20	1.00 - 1.20	1.00 -1.20	1.00 - 1.20
Moisture Content	IEC 641	%	≤8	≤8	≤8	≤8	≤8	≤8
Ash Content	IEC 641	%	≤5	≤5	≤5	≤5	≤5	≤5
Tensile Strength:								
MD	IEC 641	N/mm ²	≥65	≥65	≥65	≥65	≥65	≥65
CMD	IEC 641	N/mm ²	≥35	≥35	≥35	≥35	≥35	≥35
Elongation								
MD	IEC 641	N/10mm	≥6.5	≥6.5	≥6.5	≥6.5	≥6.5	≥6.5
CMD	IEC 641	N/10mm	≥2.5	≥2.5	≥2.5	≥2.5	≥2.5	≥2.5
Shrinkage	IEC 641	%	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0	≤2.0
Conductivity of aqueous extract	IEC 641	µS/cm	≤200	≤200	≤200	≤200	≤200	≤200
Dielectric Strength	IEC 641	kV/mm	≥10.0	≥10.0	≥10.0	≥10.0	≥10.0	≥10.0

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Trademark Information: Flexiso® is a registered trademark of the company Dr. Dietrich Müller GmbH Germany.

Information:

The information in this Technical Data Sheet is based on our present knowledge and experiences. It does not release the user from conducting their own trials and examinations to determine the suitability of the product for his intended use. A legally obligatory warranty of certain characteristics or the suitability for a specific targeted application cannot be derived from our data. Depending upon individual cases we recommend consultation with us. Any patent rights as well as existing laws are to be considered by the receiver of our products as their own responsibility

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