

Dr. Dietrich Müller GmbH, Zeppelinring 18, D-26197 Ahlhorn

Electrical Insulation Material

Norton® TH FI 16011

Structure: Norton® TH FI 16011 is a Polyimide Film, code PI which main structural feature are imides. The polyimides are produced by a condensation polymerization process and are further processed in a chemical processing of the film.

Characteristics: Norton® TH 16 011 FI is a high-performance plastic that is unique in its combination with polymer film materials, which is otherwise not found. This makes it ideal for a variety of applications in numerous areas. Norton® TH 16 011 FI has excellent chemical resistance, there are no known organic solvents. Norton® TH FI 16 011 is dimensionally stable, the shrinkage is less than 0.08%. In addition, Norton® TH FI 16 011 has no melting point, is flame resistant and has the highest flammability rating of UL-94 V-0 (UL File: E231847) and begins to carbonize at 800°C. Due to its excellent properties, Norton® TH FI 16011 is used both at extremely low temperatures down to -265°C and high temperatures above +400°C and has a temperature resistance of +220°C, in which other organic materials are no longer functional. By default, Norton® TH FI is 16011 can be used at temperatures of 20 - 220°C.

Application: Norton® TH FI 16011 is used for the electrical motor insulation, cable and wire insulation, in windings, in magnetic coils, in transformers, in condensers and, in printed circuit boards. The film Norton® TH FI 16011 can be laminated, metallized, die-cut or coated with adhesive.

Colour: Norton® TH FI 16011 is supplied in amber.

Stand June 2011

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info@mueller-ahlhorn.com | www.mueller-ahlhorn.com | Sitz der Gesellschaft: Ahlhorn
Geschäftsführer: Heinz-Jürgen Siebert | AG Oldenburg: HRB 209026 | Ust. ID-Nr.: DE 295969093
St.-Nr.: 68/207/07677 | Zertifiziert nach DIN EN ISO 9001:2008 | UL anerkannter Repacker E341377

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Delivery Form: Norton® TH FI 16011 is available in a thickness of 0.125 mm and delivered in widths from 5mm to 1028mm.

Storage Conditions: Norton® TH FI 16011 has an unlimited shelf life under normal conditions (20 ° C, 50% RH).

Properties	Testmethod	Unit	Value				
Total thickness	-	mm	0.019	0.025	0.050	0.075	0.125
Density	-	g/cm ³	1.46	1.46	1.46	1.46	1.46
Basis Weight	-	g/m ²	23.98	35.97	71.94	107.53	181.81
Area Yield	-	m ² /kg	41.70	27.8	13.9	9.3	5.5
Standard width	-	mm	1028	1028	1028	1028	1028
Roll Length	-	m	2286	1524	762	508	301
Standard Roll Weight	-	kg	56.3	56.3	56.3	56.3	56.3
Area Yield (per Roll)	-	m ²	2350	1566.6	783.3	523.0	309.6
Outside Diameter (with a core diameter of 152 mm)	-	mm	273	273	273	273	273
Max. tensile strength	ASTM D-882	N/mm ²	250	250	250	250	250
Max. elongation	ASTM D-882	%	85	85	85	85	85
Modulus	ASTM D-882	N/mm ²	3200	3200	3200	3200	3200
Dielectric strength	ASTM D-149	V/μm	290	280	260	230	220
Permittivity	ASTM D-150	-	3.3	3.3	3.3	3.3	3.3
Loss Factor	ASTM D-150	-	0.005	0.005	0.005	0.005	0.005
Volume Resistivity	ASTM D-257	Ω cm	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
Surface Resistivity	ASTM D-257	Ω	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶
Thermal expansion coefficient	ASTM D-696	ppm/°C	40	40	40	40	40
Shrinkage	ASTM D-5213-04	%	0.05	0.05	0.05	0.05	0.05
Glass transition temperature	DSC, TMA	°C	>380	>380	>380	>380	>380
Moisture absorption	ASTM D-570	%	2.5	2.5	2.5	2.5	2.5

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Trademark Information: Norton® is a registered trademark of the company Saint-Gobain Performance Plastics.

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