

## electrical insulation material

### 3M™ TufQUIN TFT 50 | FI 14130

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**Description:** 3M™ TufQUIN TFT 50 | FI 14130 is, due to its composition of inorganic 3M TufQUIN insulation paper and polyesterfilm, a flexible laminate with a good dielectric and mechanical strength.

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**Properties:** 3M™ TufQUIN TFT 50 | FI 14130 is, according to IEC 61249-2-21, halogen-free and certified for UL® class N (200° C). It offers an excellent resistance to partial discharge damage, long-term dielectric strength at high temperatures, mechanical strength, thermal conductivity as well as a good electrical strength. In addition, 3M™ TufQUIN TFT 50 | FI 14130 is highly moisture-resistant and has a distinguished absorption capacity for impregnating agent.

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**Application:** 3M™ TufQUIN TFT 50 | FI 14130 is used for motors, coils and electromagnets. It's suitable, according to UL® 1446 and IEC 61857, for applications in electrical insulation systems. These papers are listed in the UL-Database (File-Number E65069 and E65007).

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**Colour:** 3M™ TufQUIN TFT 50 | FI 14130 is white.

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**Delivery forms:** 3M™ TufQUIN TFT 50 | FI 14130 is available in the thicknesses of 0,13 - 0,46 mm. It can be delivered as a die-cut or molded part, customized cut, tape or roll. Coatings are possible. More delivery forms upon customer request.

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Dr. Dietrich Müller GmbH

### 3M™ TufQUIN TFT 50 | FI 14130

Properties	Testmethod	Unit	Value TFT 2-4-2
Thickness	IEC 626-2	mm	0,21
		mil	8,4
TufQUIN-thickness	IEC 626-2	µm	50
Film-thickness	IEC 626-2	µm	100
Surface weight	IEC 626-2	g/m <sup>2</sup>	245
Elongation MD TD	IEC 626-2	%	25
			40
Tensile strength MD TD	IEC 626-2	N/10mm	190
			150
Moisture	IEC 626-2	%	1,0
Shrinkage MD TD	IEC 626-2	max. %	1,5
			1,5
Dielectric strength	IEC 626-2	kV	12

Properties	Testmethod	Unit	Value TFT 2-7,5-2
Thickness	IEC 626-2	mm	0,3
		mil	10,2
TufQUIN-thickness	IEC 626-2	µm	50
Film-thickness	IEC 626-2	µm	190
Surface weight	IEC 626-2	g/m <sup>2</sup>	365
Elongation MD TD	IEC 626-2	%	25
			40
Tensile strength MD TD	IEC 626-2	N/10mm	280
			220
Moisture	IEC 626-2	%	1,0
Shrinkage MD TD	IEC 626-2	max. %	2,0
			2,0
Dielectric strength	IEC 626-2	kV	16

## 3M™ TufQUIN TFT 50 | FI 14130

Properties	Testmethod	Unit	Value TFT 2-14-2	
Thickness	IEC 626-2	mm	0,46	
		mil	18,4	
TufQUIN-thickness	IEC 626-2	µm	50	
Film-thickness	IEC 626-2	µm	350	
Surface weight	IEC 626-2	g/m <sup>2</sup>	585	
Elongation	IEC 626-2	%	MD	25
			TD	35
Tensile strength	IEC 626-2	N/10mm	MD	420
			TD	400
Moisture	IEC 626-2	%	1,0	
Shrinkage	IEC 626-2	max. %	MD	2,0
			TD	2,0
Dielectric strength	IEC 626-2	kV	23	

3M™ TufQUIN TFT 50 | FI 14130 has a conformity for RoHS and REACH.

**Trademark information:** TufQUIN is a registered trademark of 3M™ Co., USA.

**Please note:**

The information in this data sheet is based on our current knowledge and experience. They do not disengage the fabricator and the 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.