

Technical films

Tecfilm® TC 00421

Description: Tecfilm® TC 00421 is a first class thermoplastic polyetherimide film. Tecfilm® TC 00421 is an optimal alternative in the section of electric and electronic applications because of its high temperature resistance, flame resistance, low humidity absorption as well as excellent dielectric properties. Tecfilm® TC 00421 is formable, can be treated with heat and hot-sealed which enables a great product variation.

Properties: Tecfilm® TC 00421 is high temperature resistant, flame resistant and characterizes by its excellent dielectric strength.

Application: Tecfilm® TC 00421 is used in many different applications in the electronic and electrical industry. This model is often used in the loud speaker construction.

Standard colour: Tecfilm® TC 00421 is delivered in a black colour as standard.

Delivery forms: Tecfilm® TC 00421 can be supplied in a thickness range of 75 up to 500 µm with a tolerance of ± 5 %. Tecfilm® TC 00421 is delivered on rolls with a width of 1270 mm as standard, as well as die-cut or formed part, as tape and other formats and dimensions can be requested. Tecfilm® TC 00421 has a smooth or fine matt structure.

Dr. Dietrich Müller GmbH

Tecfilm® TC 00421

Properties	Test method	Unit	Value
Thickness area	-	µm	75 – 500 (± 5 %)
Specific weight	ISO 1183	g/cc	1.27
Water absorption, soaked, 23°C, 24 h	ASTM D 570	%	1.25
Water absorption, 50 % rel. air humidity, 23°C, 24 h	ASTM D 570	%	0.48
Tensile modulus	ISO R527	MPa	3000
Tensile strength at yield	ISO R527	MPa	100
Tensile elongation at yield	ISO R527	%	6.5
Tensile strength at break	ISO R527	MPa	95
Tensile strength at break	ISO R527	%	60
Initial tear resistance 75 µm	ASTM D1004	N/mm	260
Initial expansion resistance 75 µm	ASTM D1938	N/mm	3.5
Coefficient of thermal expansion	IPC-TM-650	ppm/°C	52
Shrinkage longitudinal at 170°C	IPC-TM-650	%	0.33
Shrinkage crosswise at 170°C	IPC-TM-650	%	0.24
Glass transition temperature	DMA	°C	217
Thermal conductivity	ASTM C177	W/mK	0.22
Dielectric strength 125 µm	ASTM D149	Volts/mil	2410
Dielectric constant	IPC-TM-650	-	3.2
Dissipation factor	IPC-TM-650	-	0.005
Volume resistivity	ASTM D257	M Ω-cm	2.5 x 10 ¹⁵
Surface resistance	ASTM D257	M Ω	1.9 x 10 ¹⁶
Flammability	UL 94	-	VTM-0

Trademark information: Tecfilm® is a registered trademark of the Dr. Dietrich Müller GmbH, Germany.

Dr. Dietrich Müller GmbH

Tecfilm® TC 00421

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.

Dr. Dietrich Müller GmbH