

Technical films

Tecfilm® PTFE TC 00440

Description: Tecfilm® PTFE TC 00440 is a completely fluorinated polymer, which is semi-crystalline, almost opaque and white. The material offers a very high chemical resistance as well as excellent thermal resistance. Tecfilm® PTFE TC 00440 exhibits exceptional non-stick and gliding properties.

Applications: Tecfilm® PTFE TC 00440 can be used for bearings, seals, O-rings, electrical high-temperature insulations, non-stick coatings and liners in containers. The properties of Tecfilm® PTFE TC 00440 are essential for laboratory applications.

Delivery forms: Tecfilm® PTFE TC 00440 can be delivered on roll, as tape, customized cut or die-cut part as well as self-adhesive. Other delivery forms upon customer request.

General properties	Test method	Unit	Value
Density	ISO 1183	g/cm ³	2,14 - 2,19
Highest service temperature		°C	250 – 260
Flammability			Incombustible
Waterabsorption at 23°C		%	< 0,05
Thermal properties			
Melting temperature	ATM 2116	°C	327
Coefficient of thermal expansion	DIN 52612	10 ⁻⁵ *K ⁻¹	10 – 16
Thermal conductivity at 23°C		W/K*m	0,23
Specific heat at 23°C		kJ/kg*K	1,01
Oxygen index		%	> 95

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Mechanical properties	Test method	Unit	Value
Tear strength at 23°C	ISO 527	N/mm ²	29 – 39
Tear strength at 150°C	ISO 527	N/mm ²	14 – 20
Yield strength at 23°C	ISO 527	N/mm ²	10
Elongation at break at 23°C	ISO 527	%	200 – 500
Tensile modulus at 23°C	ISO 527	N/mm ²	400 – 800
Flexural stress at given strain at 23°C	ISO 178	N/mm ²	18 – 20
Flexural modulus at 23°C	ISO 527	N/mm ²	600 – 800
Ball impression hardness at 23°C	ISO 2039		25 – 30
Rockwell hardness R	ISO 2039		20 – 30
Electrical properties			
Shore-hardness	DIN 53505		55 – 72
Coefficient of friction			0,05 – 0,2
Dielectric constant at 100 Hz	IEC 60250		< 2,1
Dielectric constant at 10 ⁶	IEC 60250		< 2,1
Dielectric loss factor at 100 Hz		Ω	0,5 – 0,7
Tracking resistance	IEC 60112		KA3 _C
Dielectric strength	IEC 60243-2	kV/mm	> 40
CTI-Value			600

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

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.

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