

## Technical films

### Tecfilm® TC 00113

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**Description:** Tecfilm® TC 00113 is a black, one-side fine matt, one-side velvet matt polycarbonate film. Tecfilm® TC 00113 is UL94 V-0 classified, formable and characterizes by its excellent mechanical properties as well as good dimensional stability.

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**Properties:** Tecfilm® TC 00113 is very dimensionally stable, heat resistant, has excellent mechanical properties, can be formed and it is also classified according to UL94 V-0.

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**Applications:** Tecfilm® TC 00113 can be used as insulation material among others in power supplies, disc drives, TVs and monitors as well as computers.

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**Delivery forms:** Tecfilm® TC 00113 can be delivered on roll or as tape, customized cut and die-cut part as well as self-adhesive. Other delivery forms upon customer request.

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## Tecfilm® TC 00113

Properties	Test method	Unit	Value
Tensile strength at yield	ASTM D882	psi	10800
	ISO 527	MPa	70
Ultimate tensile strength	ASTM D882	psi	11000
	ISO 527	MPa	60
Tensile modulus	ASTM D882	psi	317000
	ISO 527	MPa	2200
Elongation at break	ASTM D882	%	100 – 160
	ISO 527	%	100 – 155
Impact strength	ASTM D3029	ft-lb	11
	ISO 6603-1	J	28
Initial tear strength	ASTM D1004	lb/mil	1.43
		kN/m	298
Propagation tear strength	ASTM D1922	g/mil	18.8
		g/mil	6
Puncture resistance (Dynatup)	ASTM D3763	ft-lb	9
		J	12
Fold endurance (MIT) 0.25 mm	ASTM D2176-69	Double folds	27
Fold endurance (MIT) 0.50 mm	ASTM D2176-69	Double folds	12
Thermal conductivity	ASTM D5470	W/mK	0.2
Coefficient of thermal expansion	ASTM E831	(x10 <sup>-5</sup> /°F)	3.2
	ISO 11359	(x10 <sup>-5</sup> /°C)	5.8
Specific heat at 4°C	ASTM E1269	KJ/Kg-°C	1.25
Glass transition temperature	ASTM D3417/D3418 ISO 11357	°F	307
		°C	153
VICAT softening temperature	ASTM 1525-00	°C	175
Heat deflection temperature at 1.8 MPa	ISO 75	°C	175
Shrinkage at 150°C	ASTM D1204	%	0.02
Brittleness temperature	ASTM D746	°C	-135
Density	ISO 1183	kg/m <sup>3</sup>	1344
Water absorption 24 h	ASTM D570 ISO 62	%	0.28
Surface energy	ASTM D5946-01	-	35
Surface tension	Dyne Pens	Dyne	36 – 38
Gloss min. /max. at 60°C	ASTM D523-60	%	10.5
Dielectric strength in oil at 23°C, 0.25 mm thick	Method A	kV/mil	1.5
		kV/mm	68
Dielectric constant at 60 Hz	ASTM D150 IEC 60250	-	2.9
Dielectric constant at 1,000,000 Hz	ASTM D150 IEC 60250	-	2.8

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Properties	Test method	Unit	Value
Dissipation factor at 60 Hz	ASTM D150 IEC 60250	-	0.0026
Dissipation factor at 1,000,000	ASTM D150 IEC 60250	-	0.0117
Volume resistivity	ASTM D257 IEC 60093	Ω-cm	1.00E+17
Surface resistance	ASTM D257 IEC 60093	Ω/square	1.00E+16
Arc resistance, Tungsten Electrodes	ASTM D495	s	64

**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 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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