

## Technical films

### Tecfilm® PE HD TC 00070

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**Material:** Tecfilm® PE HD TC 00070 is a semi-crystalline (typically 70-80 %), whitish, semi-translucent utility thermoplastic with properties similar to Tecfilm® PE LD TC 0080. High density polyethylene is substantially more durable and rigid and offers better resistance against chemical substances. Its impact strength is relatively high, even at low temperatures, but not equal to Tecfilm® PE LD TC 0080. Its electrical properties are especially good for high frequency applications. The barrier properties of Tecfilm® PE HD TC 00070 are average.

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**Applications:** Tecfilm® PE HD TC 00070 can be applied for a great number of containers, blown bottles for food products, tubes and tube-connections as well as packaging film.

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**Delivery forms:** Tecfilm® PE HD TC 00070 can be delivered on roll or as tape, customized cut or die-cut part, as well as self-adhesive. Other delivery forms upon customer request.

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## Tecfilm® PE HD TC 00070

Properties	Unit	Value
Refractive index		1,54
Density	g cm <sup>-3</sup>	0,95
Flammability		HB
Min. oxygen content	%	17
Radiation resistance		Satisfactory
Water absorption, over 24 h	%	<0,01
UV-light resistance		Poor
Resolution factor at 1 kHz		1-10 x 10 <sup>-4</sup>
Dielectric resistance	kV mm <sup>-1</sup>	22
Dielectric constant at 1 MHz		2,3 – 2,4
Spec. contact resistance	Ohm/sq	10 <sup>13</sup>
Spec. volume resistance	Ohmcm	10 <sup>15</sup> -10 <sup>18</sup>
Heat bending temperature – 0,45 MPa	°C	75
Heat bending temperature – 1,8 MPa	°C	46
Linear coefficient of thermal expansion	x10 <sup>-6</sup> K <sup>-1</sup>	100 – 200
Max. long-term service temperature	°C	55 – 120
Spec. heat	J K <sup>-1</sup> kg <sup>-1</sup>	1900
Thermal conductivity	W m <sup>-1</sup> K <sup>-1</sup>	0,45 – 0,52
Tensile modulus	GPa	0,5 – 1,2
Hardness – Rockwell	Shore	D60-73
Notch impact strength – Izod	J m <sup>-1</sup>	20 – 210
Poisson-ratio		0,46
Friction coefficient		0,29
Tensile strength	MPa	15 – 40

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## Tecfilm® PE HD TC 00070

Alcohols	Good
Aromatic hydrocarbons	Satisfactory
Greases and oils	Good-mediocre
Halogens	Satisfactory-poor
Halogen hydrocarbons	Satisfactory-poor
Ketones	Good-mediocre
Lyes	Good
Acids – concentrated	Good-mediocre
Acids - diluted	Good

**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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