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## SynTherm® P

SynTherm® P is a flexible polyester film based on polyethylene terephthalate. With increasing thickness the film appears to be cloudy or milky white.

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### Attributes

With its excellent balance of electrical properties SynTherm® P offers many constructional possibilities for the electrical industry. It is suitable for use in a temperature range from -40 °C to +140 °C short-term.

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### Application

Polyester film SynTherm® P is suitable for systems up to 130 °C. It is used in motor and generator engineering as wedge and for slot insulation or phase insulation. In transformers, chokes and relays it is often used as core, layer or final insulation.

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### Delivery forms

#### Film thickness in µm:

23, 36, 50, 75, 100, 125, 190, 250, 300, 350

(further thicknesses on request)

#### SynTherm® P is available:

- tapes as of 6 mm width
- rolls up to 1,000 mm width

#### Feathering:

- depth approx. 1 - 12 mm, distance approx. 1 - 10 mm
- as of 10 mm up to 240 mm width of tape,

material thickness on request

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### Base

PET

Mechanical	Unit of measure						
Total thickness	µm	23	36	50	75	100	125
Specific weight	g/m <sup>2</sup>	32.2	50.4	70	105	140	175
Tensile strength longitudinal	N/mm <sup>2</sup>	196	196	186	186	176	176
Tensile strength transversal	N/mm <sup>2</sup>	196	196	186	186	176	176
Elongation at break longitudinal	%	130	130	140	140	140	140
Elongation at break transversal	%	120	120	130	130	130	130
Shrinkage (30 min at 150 °C) longitudinal	%	1.8	1.6	1.6	1.4	1.2	1.2
Shrinkage (30 min at 150 °C) transversal	%	0.4	0.4	0.4	0.4	0.4	0.4

Mechanical	Unit of measure				
Total thickness	µm	190	250	300	350
Specific weight	g/m <sup>2</sup>	266	350	420	490
Tensile strength longitudinal	N/mm <sup>2</sup>	176	176	166	166

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Mechanical	Unit of measure				
Tensile strength transversal	N/mm <sup>2</sup>	176	176	166	166
Elongation at break longitudinal	%	150	150	150	150
Elongation at break transversal	%	140	140	140	140
Shrinkage (30 min at 150 °C) longitudinal	%	1.2	1.2	1.2	1.2
Shrinkage (30 min at 150 °C) transversal	%	0.4	0.4	0.4	0.4

Electrical	Unit of measure						
Total thickness	µm	23	36	50	75	100	125
Dielectric strength	kV	4.5	7.5	9.5	12.5	14	17

Electrical	Unit of measure				
Total thickness	µm	190	250	300	350
Dielectric strength	kV	20	22	24	26

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