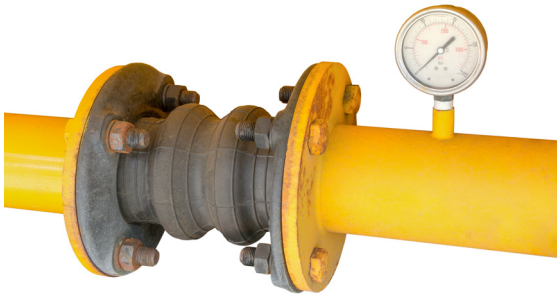
Skived PTFE Films Premium

Saint-Gobain offers a broad range of Skived Films. These films are manufactured from high quality virgin PTFE resins or PTFE compounds and are designed to meet applications with the highest operational requirements. Full in-house processing includes mixing, moulding, sintering, skiving, sodium-ammonia surface treatment and slitting as well as IATF 16949 and ISO 9001 certifications guaranteeing consistent high product quality.

Skived Premium PTFE Films are used in the toughest and most demanding applications. The high temperature and outstanding chemical resistance, insulation and low friction properties provide excellent performance. The materials mechanical properties combined with their conformity to common food and pharma regulations make them a preferred choice for high-end requirements.

To complement the product offering a bondable version is available (best-in-class etching on one or both sides).



- Septa, cap and storage tank liners
- Pump and Valve Diaphragms
- Elastomer Laminates
- Gas & Liquid tight barrier in compensators and expansion joints

- Release material for electronics
- Food baking and grilling

- High frequency circuit boards
- Wire & cable especially in high temperature and sensitive equipment

- Low friction & anti-squeak in automotive

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Find more information on www.films.saint-gobain.com

CHEMFILM®

Typical Properties	Thickness [mm]	Surface tension, etched surface [mN/m]	Tensile Strength* [N/mm²]	Elongation at break* [%]	Filler content [% by weight]	Appearance/ Color
0100 Premium-PTFE	0.025 - 3.0	N/A	≥ 25	≥ 280	None	White
0100E Premium-PTFE, etched	0.025 - 1.5	≥ 45	≥ 25	≥ 280	None	Brown**
0105 Premium- PTFE, colored	0.05 - 3.0	N/A	≥ 25	≥ 250	≤ 3	Color
0105E Premium- PTFE, colored, etched	0.05 - 1.5	≥ 45	≥ 25	≥ 250	≤ 3	Brown**
0167 Antistatic-PTFE compound	0.1 - 3.0	N/A	≥ 25	≥ 250	≤ 2	Black
0167E Antistatic-PTFE compound, etched	0.1 - 1.5	≥ 45	≥ 25	≥ 250	≤ 2	Black/ Brown**
Test Method	-	*DIN ISO 8296*	*DIN EN ISO 527 v = 50 mm/min microtensile specimen (according to ISO 13000*	*DIN EN ISO 527 v = 50 mm/min microtensile specimen (according to ISO 13000)*	*Thermal Gravimetric Analysis*	-

ADDITIONAL PROPERTIES

Applies to all materials

Density* [g/cm²]	2.13 - 2.19	DIN EN ISO 1183-1
Surface finish [µm]	$R_t \leq 5$ for 0100 Premium PTFE $R_t \leq 10$ for others	DIN EN ISO 4288
Dielectric breakdown strength [kV/mm]	40 - 100 for unfilled materials	ASTM D-149 thickness 0.05 - 0,5mm
Ball indentation hardness 132/60*** [N/mm²]	28 for unfilled materials	DIN EN ISO 2039-1 thickness min 4mm
Coefficient of friction****	0.07 for unfilled materials 0.11 for filled materials	

FEATURES & BENEFITS

- High purity due to usage of highest quality resins
- Continuous service temperature up to 260°C
- Superior etching for improved bondability
- Conformity to common food and pharma regulations
- Low friction combined with perfect release properties
- Very high insulation properties for electrical applications
- Extremely tight tolerances
- Outstanding, almost universal chemical resistance

AVAILABILITY

Skived PTFE Films are available in widths up to 1700 mm and thickness down to 25 µm. A variety of standard dimensions is always available and kept in stock. Please contact the factory for further information, slit widths and minimum order quantities. Special thicknesses, widths or other requirements are available upon request.

Performance tests are run using standard test procedures. The values presented are typical values and should not be used for specification purposes. Special requirements (e.g. thickness or color) are available. All values, except surface tension, are measured on non-etched film/laminate with a thickness of > 0.1 perpendicular to molding direction.
*Standard values according to ISO 13000 PTFE semi-finished products grade 1 (for unfilled materials)
** On etched side
***Raw material manufacturer data
****Ball on Disc, Ø=6mm, v=10mm/s, F_N=2N, t=2h

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