

FLUOROWRAP[®]

Next Generation Film Solutions for Wire and Cable Insulation

Engineered for High Performance Insulation



High Power



Frequency



Temperature



Fire



Corrosion



Exposure



Abrasion



Adherence

FLUOROWRAP® Next Generation Film Solutions for Wire and Cable Insulation

Engineered for High Performance Insulation

Applications for Extreme Conditions

- Aviation
- Offshore
- Oil & Gas
- Telecom
- Robotics
- Instrumentation
- Military
- Medical
- Space



An industry leader for more than 45 years, Saint-Gobain Performance Plastics is an experienced partner in providing high performance insulation films. Backed by a proud heritage of product innovation, technological expertise and market leadership, Saint-Gobain is dedicated to working with our customers to solve today's demanding application issues and the challenges that lie ahead.

Through the support of our four global research and development centers and our advanced polymer technology, Saint-Gobain creates innovative products that enhance performance in the most demanding environments.

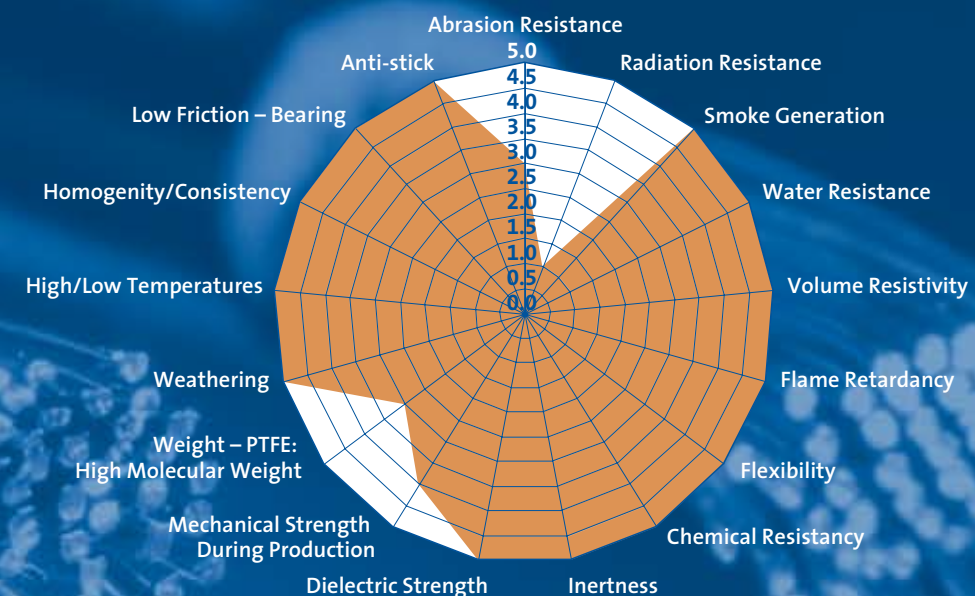


Our FLUOROWRAP® family of fluoropolymer products improves cable performance in the harshest conditions and is especially well suited for use in the aviation industry.

FLUOROWRAP's unmatched consistency provides an ideal solution for the signal cable market, where high frequencies are becoming more important. The low dielectric constant (the lowest with FLUOROWRAP Low Density PTFE film) combined with consistent long lengths significantly reduces the effect of attenuation, improving signal quality where other materials fail. FLUOROWRAP optimizes signal integrity over long lengths of cable while reducing cable size and weight.



Properties of FLUOROWRAP PTFE Film



Engineered Films for Wire and Cable Insulation



FLUOROWRAP Extruded PTFE Film

- Designed for primary insulation of hook-up wires, jackets and cables
- Highest tensile properties in the industry
- Increased wrapping speed during cable production
- Maintains insulation profile integrity and increases productivity, reducing manufacturing costs

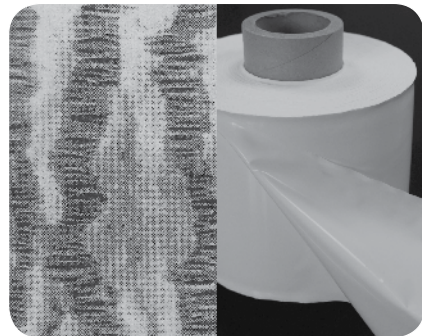


Photo courtesy of sigma-information.com

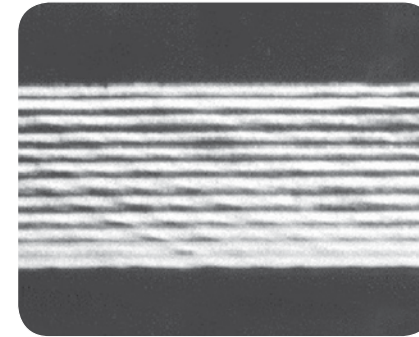
FLUOROWRAP Low Density PTFE Film

- Unsintered PTFE films
- Highest achievable tensile strength at the lowest dimensional variation
- Low dielectric constants and lowest attenuation on longest signal cable lengths
- Designed for highest frequencies with lowest signal losses
- Longest achievable tape length
- High-end cable impedance control



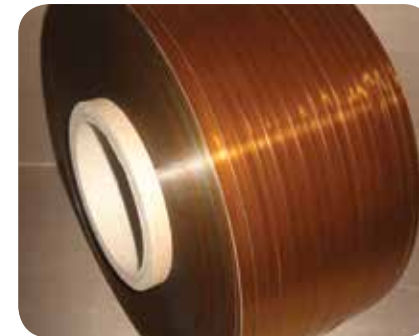
FLUOROWRAP Skived PTFE Film

- Full density sintered PTFE films
- Widely used as chemical barrier and binding films in specialty cables for electrical heating devices
- Good abrasion resistance and bearing properties
- Ideal for applications requiring flexibility and robust performance
- Available in different compounded or anti-static versions



FLUOROWRAP Cast PTFE Film

- Full density sintered multilayer PTFE films
- Isotropic mechanical properties
- Dimensional stability
- Extreme pinhole-free surfaces
- High elongation
- Superior dielectric properties
- Ideal for low-noise cable applications



FLUOROWRAP Composite Polyimide Film

- Excellent dielectric properties
- Withstands high voltage
- Durable
- Good cut-through and abrasion resistance
- Can be used in a wide range of temperatures
- High radiation resistance and low outgassing



FLUOROWRAP Fluoropolymer Films & Coated Fabrics

- PFA, FEP, ETFE, PVDF, MFA and PTFE coated fabric
- Excellent electrical insulation properties
- Heat sealable
- Good resistance against aggressive media
- Widely used as jacket materials

Multiple Package Solutions to Facilitate Your Process

Please contact our technical service department and we will tailor the best package for you.

- Jumbo (large)
- Flat pad (pancake)
- Universal
 - StablEdge™
 - Ultra-long length (splice free)
- Ultra-narrow widths



Solutions for the Aerospace Industry

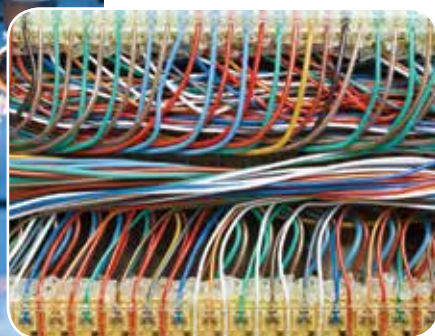
Saint-Gobain maintains a strong commitment to the aerospace market. Our unsintered and low density PTFE films are engineered to meet and exceed the stringent demands of this industry for safety and weight. FLUOROWRAP films are designed to create the ideal cable with maximum performance at the smallest size and lowest weight.

Available in thicknesses $\geq 50\mu\text{m}$, FLUOROWRAP unsintered PTFE film offers unmatched thickness consistency, with lowest thickness tolerances at the longest achievable PTFE tape length, without splice or preform joints. These dimensional consistencies and high mechanical properties allow users to wrap insulation at the required minimum on the conductor, resulting in weight reduction. This minimum requested overlap, combined with the most homogeneous densities and highest mechanical tensile properties, allows cable makers to run their taping heads faster, while making safe products that maintain profile integrity.

Our laser-markable tape solutions comply with OEM requests for 60% before and 40% after aging.

FLUOROWRAP film is available in a wide range of clear bright colors that comply with the EU's Restriction of Hazardous Substances (RoHS) for electronic equipment, meeting the strict demands of aircraft OEMs worldwide.

Saint-Gobain's technical services department will help you to adapt our products to your equipment to achieve maximum profitability.

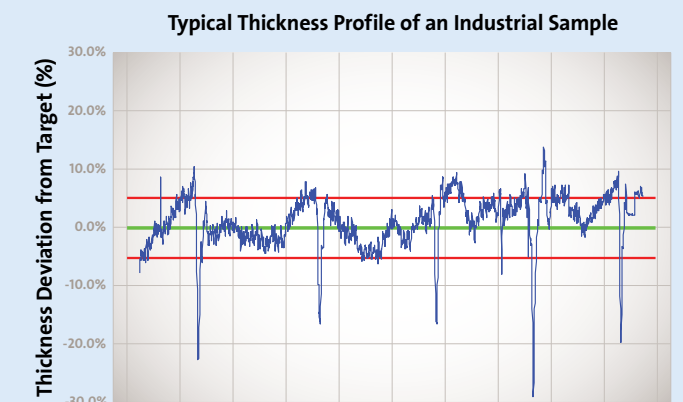
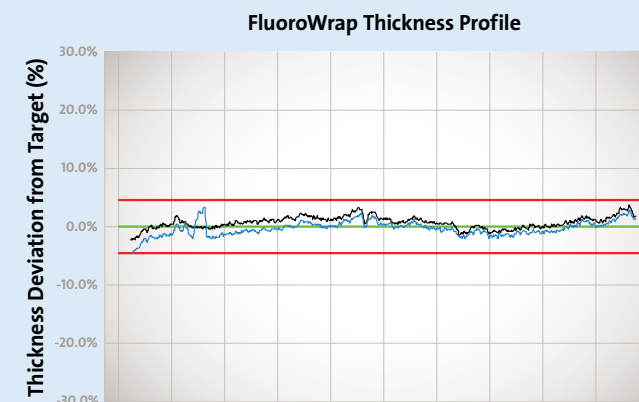


FLUOROWRAP PTFE Film Advantages

- Weight/space savings
- World champion in dimensional, electrical and mechanical consistency
- Longest splice/defect-free lengths
- Highest mechanical strength for higher wrapping speeds and profitability
- Laser markable, high contrast ratios
- Safe and cost effective

Thickness Profiles of Unsintered PTFE Film

FLUOROWRAP unsintered PTFE film maintains an unparalleled consistent thickness, with no peaks or deviation from tolerance limits.



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