PTFE & Silicone Fabrics

EN ERGY COMPOSITES FOOD PACKAGING FLAT BREADS LAMINATION SURGICAL AUTOMOTIVE PHARMA WELDING AVIATION TORTILLAS MEDICAL BLEEDER CLOTH BAKING PEEL-PLY THERMAL SPRAY POLYFILM ABRASIVES CONSTRUCTION WOOD PRODUCTS FORM-FILL-SEAL SOLAR PANELS ELECTRONICS TEXTILES



High Tolerances for Demanding Environments

When coated high-performance fabrics are needed for your machinery, process, or product, you can depend on Green Belting Industries of Companies for our complete line of PTFE Fabrics. Constructed with the finest quality materials and technology, all PTFE Fabrics offer exceptional release properties (non-stick), strength, dimensional stability, and resistance to extreme temperatures, chemical bonding, abrasion and compression. All offer industry-leading durability, multi-cycle re-usability, and many are FDA compliant. We offer a wide range of thicknesses, surface textures, weaves, porosities, and dielectric properties for optimal performance across a wide range of end-use applications.

Some common end-use applications...



Packaging

Whether it's for the packaging of food, toys, pharma, or surgical products, or if the process involves form / fill / seal, heat-shrink, or blister pack machinery, PTFE Fabrics offer protective coverings for heat-sealing elements. They allow rapid transfer of heat while protecting the heat elements from build-up of melted packaging material.

Depending on the type of machinery and process, a variety of performance fabrics may be used. Some of the more common applications use PTFE 100-3, and DXL 3.



Baking and Grilling

PTFE baking tray liners offer a safe way to improve baking efficiency, both in commercial and household settings. The non-stick liners allow clean and easy removal of cooked products while preventing adhesion and build-up of baking ingredients. The result is faster turnover time and reduced clean-up. The PTFE coating withstands the high temperatures of baking ovens (up to 287° C / 550° F).

Different product applications, ingredients, abrasiveness, temperatures, as well as expectations for longevity, and turnaround time call for different thicknesses and grades of PTFE fabric, from 100-3, to 100-10.



Composites / Peel-Ply

PTFE Fabrics fill a number of roles within the composite industry, from use as peel-ply and porous cloth, to release film. For peel-ply, thinner (Porous) grades are generally preferred for their conformability, breath-ability, texture, and strength. The porous nature of the thinner fabrics allows gasses to escape during the curing process. Different surfaces textures, from smooth to coarse, can be selected to control the desired surface texture on the finished product. Due to the use of high-strength substrates, even thinner PTFE peel-ply fabrics can be removed easily, and in one piece, once the composite product has cured.

Fabrics typically used in peel/ply and release applications include PTFE100-3, 100-8 SW PR, and 100-10.



Flat-bread Belt and Platen Cover

The baking of tortillas, and flat breads often involves abrasive flour and grain ingredients, oils, high heat, and pressure. The belts and platen covers used in this machinery must therefore be able to resist these elements and forces. FDA compliant PTFE Belts and press platen covers endure the high baking temperatures abrasiveness while allowing clean release and removal of finished products and debris. PTFE Fabrics also resist penetration of cooking oils and resist bonding of other ingredients.

100-10 and DXL 10 PTFE Coated Glass Fabrics perform well in these environments.



Lamination Sheet and Belts

Heat transfer and release properties of PTFE Fabrics make them well-suited for use in lamination equipment where high heat and pressure is used to bond lamination layers. For example, solar panel manufacturing involves laminating solar cells between EVA (ethylene vinyl acetate), tempered glass and PV (polyvinyl). PTFE coated fabrics are used both as belting, and as protective coverings for the lamination press surfaces.

Combinations of PTFE DXL 4, DXL 5, 100-5, 100-6, or 100-10 are commonly used as belts and coverings.

PTFE / Glass Fabrics offer a slippery-smooth surface texture that ranges in texture from extremely smooth to coarse weave. There are five different PTFE fabric categories, and fabric thickness range from 3 mil to 20 mil.

Silicone / Glass Fabrics offer more flexibility, resist creasing, and have a rubbery non-stick surface. Silicone fabrics can be coated on one or both sides. Fabric thicknesses range from 10 mil to 35 mil.

Physical Properties

Product	Max	Max Width		Nom. Thickness		Nom. Weight	
	(in)	(mil)	(mil)	(mm)	(oz/yd²)	(g/m²)	
		St	tandard				
100-3	40	1000	3	0.08	4	136	
100-5	40	1000	5	0.13	8	258	
100-6	40	1000	6	0.15	9	298	
100-8 SW	40	1000	8	0.20	10	332	
100-10	40	1000	10	0.25	14	488	
100-14	89	2225	14	0.36	17	576	
100-20	60	1525	20	0.51	27	902	
		P	remium				
100-3 PR	40	1000	3	0.08	4	146	
100-6 PR	40	1000	6	0.15	9	309	
			DXL				
DXL-5	40	1000	5	0.13	8	258	
DXL-10	37	925	10	0.25	15	522	
		Tear	r-Resistant				
100-4 TR	37	925	4	0.10	6	197	
100-6 TR	40	1000	6	0.15	9	298	
		S	pecialty				
100-5 SP05	40	1000	5	0.13	5	153	
		Antis	static Black				
100-10 AS	89	2200	10	0.25	14	482	
100-14 AS	89	2200	14	0.36	21	699	
		Silicone	Coated Gl	ass			
SW-10	40	1000	10	0.25	10	342	
SW-35	38	950	35	0.89	33	1131	

Fabric Categories



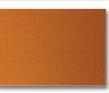
Standard

High strength PTFE / Glass offers excellent release properties for use in a wide range of applications from cooking and baking to composites / peel-ply.



Premium

Ultra smooth PTFE / Glass fabric offers exceptional release properties with superior strength and excellent heat conductivity. This fabric is used for lamination belting, rubber extrusion, and more.



DXL

Specially reinforced PTFE increases resistance to abrasion and wear. DXL is ideal for high temperatures and abrasive uses such as window frame welding, heat-sealing, and pressing / conveying of grainy food products.



Tear-Resistant

Due to their high resistance to abrasion and tearing, these fabrics are commonly used in a wide range of belting applications.



Specialty

Favoured for sealing applications, these fabrics have a very smooth surface texture and enhanced release properties.



Antistatic Black

The anti-static / conductive properties of this fabric also make it ideal for powder coating, electronics applications, and lamination belting.



Silicone / Glass

Tough, non-stick Silicone coating and high-strength Fiberglass, results in a fabric that performs well in a number of demanding environments, from cooking / baking to thermal spray masking.

The Green Belting Advantage

At Green Belting Industries, our approach to producing quality performance materials contemplates the vast range of unique applications and possibilities, from routine to complex, and from harsh to extreme. Our line of PTFE, Silicone, and Aramid fabrics meets a diverse range of barrier, release, belting, gasket, and other specialized demands. Customers experience a dramatic increase in performance and process efficiency while reducing turnaround time. Our ever-increasing Knowledge Base of resources offers tips, techniques, and examples to provide support to our customers and end users.



Strength and Performance - Fabrics, Belts, Tapes, and more...

Green Belting Industries offers the highest quality PTFE and Silicone coated fabrics, tapes, belts, and compounds for a multitude of applications ranging from baking sheets to thermal spray masking for jet engine turbine blades. **Key performance attributes:**

- Resistance to extreme temperatures and abrasion
- Non-stick surfaces resist adhesion and chemical bonding
- Excellent strength and dimensional stability
- Engineered adhesives provide exceptional grip and easy, clean release (leave no residue)
- Excellent heat transfer and dielectric properties (depending on material)
- Food-contact approved (chemically inert, nontoxic).



Research and Testing

Our goal is to provide the fabric, tape, or belt you need, when you need it. Our R & D teams are constantly testing the performance of existing products and researching new and different substrates, coating resins and manufacturing technologies in response to new and emerging applications. We are always striving to get better at what we do. Whether it's helping you find a resolution to a tough technical problem or simply getting your order out on time, Green Belting Industries is committed to providing you the most cost-effective, best performing and widest choice of engineered performance materials in the marketplace.



Manufacturing Excellence

As an ISO 9001 Quality Registered company, Green Belting Industries strives for continuous improvement and is committed to providing products and service of the highest quality. We draw from over 50 years of manufacturing excellence to design and build our own specialized equipment that delivers the highest quality engineered fabrics, tapes, & belts to the marketplace. This emphasis on quality and performance enables our customers to benefit from enhanced production efficiencies, higher output quality, and time and cost savings.



Friendly Expert Service

We know that we can only be as good as our people so Green Belting Industries thrives on individual initiative, teamwork, and superior service to our customers. Our knowledgeable Customer Service teams regularly receive hands-on, cross-departmental training which includes assembling product in one of the fabrication facilities. This approach has made our associates among the most industry-savvy in the business. With Customer Service teams based in all of our operating countries (Canada and the UK), beginning with your initial contact Green Belting Industries is with you every step of the way.



Efficient Global Distribution

With two plant and office locations in Canada and the UK, Green Belting Industries customers benefit from quick and efficient global distribution. Bringing the resources of these locations together translates to distinct advantages for our customers, including manufacturing and fabricating efficiencies and improved inventory management, delivery, and customer service. All facilities are within major population centers, assuring that the majority of our customers will experience fast product delivery.

GREEN BELTING INDUSTRIES

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As an ISO 9001 Quality Registered Company, our ongoing procedure for quality assurance starts with thorough inspection of all raw materials to ensure compliance with our required specifications. All manufacturing processes are closely monitored, and finished product is tested against our high internal standards and customer specifications. This assures that we always deliver consistently high quality products.