

# PTFE & Silicone Belting

BAKING POLYFILM PAPER PRODUCTS LAMINATION RUBBER EXTRUSION TORTILLAS RENEWABLE ENERGY  
AUTOMOTIVE INTERIORS FLAT BREADS WEATHER STRIPPING POUCHES PACKAGING PHARMA MEDICAL  
AVIATION COMPOSITE MANUFACTURING CARPET TILES INDUSTRIAL PACKAGING FOOD PRODUCTION





# Precision Belting for Demanding Environments

Green Belting Industries belting products are engineered to endure the demanding environments in a wide range of industries, from food production and packaging, to industrial manufacturing. In most of these environments, heat, pressure, chemical exposure and abrasion are typical challenges that all of our belts handle with relative ease. Various belt sizes, thicknesses, textures, strength, stability, and splice / edge / tracking options all factor into the level of customization and overall performance specifications to best meet your needs.



## Baking Oven Belts

Flat breads and tortillas are baked in press ovens that use PTFE coated conveyor belts to transport uncooked dough to the press area where a heat platen is applied, simultaneously pressing and cooking the product to its desired temperature and texture. The belts and fabrics used must be able to endure the high cooking temperatures and the abrasiveness of the doughs, many which contain coarse grains. The non-stick surface is key to maintaining a clean cooking surface.

*While belt specifications may vary, depending on the type of machinery used, we often recommend either 100-10 or DXL-10 fabric, fabricated with castellated Aramid joints with a stainless steel pin.*



## Lamination Belts

Across the wide spectrum of laminated materials, rigid composites to flexible textiles, PTFE coated belts are used to convey constituent materials, glues and resins through the heated pressure zone where the constituent materials are heated, pressed, and fused together. Within these environments, the belts must be able to withstand the heat, pressure, compression, and abrasion through repeated use while resisting adhesion of the glue and any other chemicals used in the process.

*Depending on demands of the process being used, suitable fabrics may range from 100-10 PR, DXL-10, and 100-12PR SP for lighter belting requirements, to 100-27 SP50 for heavier applications.*



## Side Seal Belts

A packaging process commonly used in the rolled paper products industry involves wrapping and sealing the finished product in a polyfilm package. After product is encapsulated in a polyfilm sleeve, the ends are heated and sealed as they are guided through the heat-seal units by PTFE / Glass belts running in tandem on either side of the product. The belts also provide a protective, non-stick barrier between the heat-seal elements, allowing the heat to transfer through to melt and seal the film wrapping, while preventing the molten film from sticking to the elements.

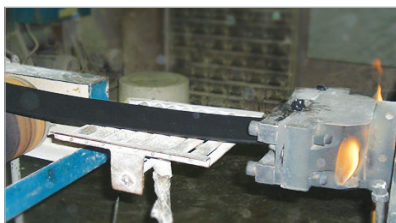
*Side Seal Belts are generally fabricated from 100-6, 100-8, and 100-10 Standard Grade fabrics. For greater longevity, 100-6 TR, and 100-10 TR (Tear Resistant) fabrics are recommended.*



## Heat Seal

There are many forms of heat-seal packaging. The image to the left shows a top-seal process where flexible polyfilm pouches are guided between hot elements by two PTFE coated Glass belts. As the packages pass through, the heat from the elements passes through the belts to the top of the pouch and melts the two layers of film together to form the seal. The 2-ply PTFE / Glass fabric belts also prevent any melted polyfilm from adhering to the heat elements.

*Depending on the application, we recommend 2-ply (double layer) belts made with 100-3, 100-5, or 100-6 PTFE / Glass Fabric.*

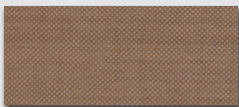


## Rubber Extrusion

Rubber polymer material is heated and then forced, at high pressure, through a shaped opening. The extruded product is then carried on a PTFE or Silicone coated Fiberglass conveyor belt as it passes through the curing oven and then cools. In some cases, fabrics with more prominent surface texture are used to convey the extruded material in order to create an intentional imprint on the freshly extruded material. Belt fabrics should be selected for best performance as belt life is reduced when temperatures exceed 287°C / 550°F for PTFE, and 250°C / 480°F for Silicone.

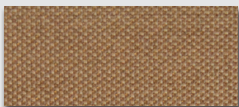
*We recommend 100-10, 100-14, 100-20 and 100-27 SP50 Premium, PTFE coated Glass, or Open Mesh, for more pronounced pattern imprint.*

## Fabric Options



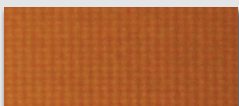
### Standard Grade

A good all-purpose, high-strength material with excellent release properties, used in a wide range of cooking applications.



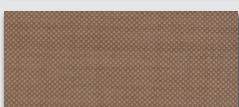
### Premium (PR) Grade

Enhanced premium coating make this fabric ideal for conveying of rubber extrusions and other products that require controlled surface texture and exceptional release.



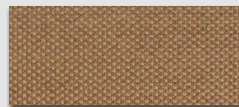
### DXL

Specially reinforced PTFE coating gives DXL fabrics added abrasion resistance for handling more abrasive materials such as coarse-grain flat breads and tortillas.



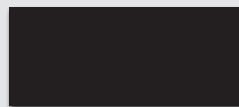
### Tear-Resistant Grade

Special coating and Glass substrate make this fabric a tough, tear-resistant and flexible conveyor belting material for demanding applications.



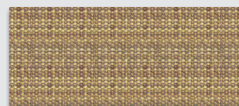
### Specialty Grade

With very smooth surface texture and excellent release properties, this fabric is well suited for heat-seal packaging applications.



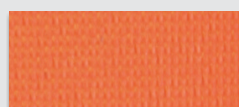
### Antistatic Black

Anti-static PTFE coating on Fiberglass substrates makes this fabric suitable for powder coating applications and handling of sensitive electronics components.



### PTFE / Aramid

Our strongest fabric (stronger than steel by weight) resists cuts, flex fatigue, moisture, and shrinkage. Best suited for more demanding and high-moisture belting applications.



### Silicone / Glass

Excellent strength, flexibility, release, and tear resistance make this fabric suitable for various food handling and packaging operations. Available with coating on one or both sides.

Physical Properties

Product	Max Width		Nom. Thickness		Nom. Weight	
	(in)	(mil)	(mil)	(mm)	(oz/yd <sup>2</sup> )	(g/m <sup>2</sup> )
Standard						
100-3	60	1500	3	0.08	4	136
100-5	60	1500	5	0.13	8	258
100-6	60	1500	6	0.15	9	298
100-8	40	1000	8	0.20	12	417
100-8 SW	40	1000	8	0.20	10	332
100-10	60	1500	10	0.25	14	488
100-10 SW	89	2200	9	0.23	10	332
100-14	89	2200	14	0.36	17	576
100-20	38	950	20	0.51	27	902
100-27	50	1270	27	0.69	31	1058
100-27 SP50	89	220	27	0.69	32	1085
Black						
100-3 BLK	40	1000	3	0.08	4	136
100-5 BLK	40	1000	5	0.13	8	258
Premium						
100-3 PR	60	1500	3	0.08	4	146
100-5 PR	60	1500	6	0.15	8	275
100-6 PR	60	1500	6	0.15	9	309
100-8 SW PR	40	1000	8	0.20	11	387
100-10 PR	60	1500	10	0.25	15	515
100-10 128	89	2200	10	0.25	15	492
100-12 PR SP	89	2200	12	0.30	18	593
100-14 PR	89	2200	14	0.36	22	732
100-20 PR	60	1500	20	0.51	31	1051
100-27 SP50 PR	89	2200	27	0.69	38	1289
DXL						
DXL-3	40	1000	3	0.08	4	136
DXL-4	40	1000	4	0.10	6	207
DXL-5	40	1000	5	0.13	8	258
DXL-6	40	1000	6	0.15	9	298
DXL-10	60	1500	10	0.25	15	522
Mechanical						
100-3 ME	40	1000	3	0.08	3	109
100-5 ME	40	1000	5	0.13	6	203
100-6 ME	40	1000	6	0.15	9	298
100-10 ME	60	1500	10	0.25	14	488
Porous						
100-3 POR	60	1500	3	0.08	2	61
100-5 POR	40	1000	5	0.13	3	109
100-22 POR	60	1500	22	0.56	22	729
Tear-Resistant						
100-3 TR	40	1000	3	0.08	4	139
100-4 TR	36	954	4	0.10	6	197
100-5 TR	40	1000	5	0.13	8	254
100-6 TR	40	1000	6	0.15	9	298
100-10R	89	2200	10	0.25	14	488
Specialty						
100-5 SP05	40	1000	5	0.13	5	153
100-10 SP10	60	1500	10	0.25	14	488
Antistatic Black						
100-5 AS	40	1000	5	0.13	8	258
100-10 AS	89	2200	10	0.25	14	482
100-14 AS	89	2200	14	0.36	21	699
PTFE Coated Aramid Fabrics						
KEV 5 PR	50	1250	5	0.13	4	146
Silicone Coated Glass						
SW-7 SP1	40	1000	7	0.18	9	288
SW-10	40	1000	10	0.25	10	342
SW-23 COSO*	38	954	23	0.58	20	675
SR -23 COSO*	38	954	23	0.58	20	675
SW-25	38	954	25	0.64	27	909
SR-25	38	954	25	0.64	27	909
SW-32 COSO*	38	954	32	0.81	30	1031
SW-35	38	954	35	0.89	33	1131

Product data is subject to change. Contact your representative for more details.

\*COSO = Coated One Side Only

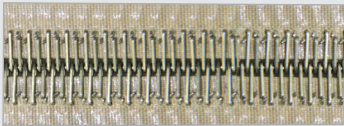
Fabric Options

Splices



Alligator Splice

An exceptionally strong splice, metal lacing is joined with a metal pin. May include a protective cover flap (shown).



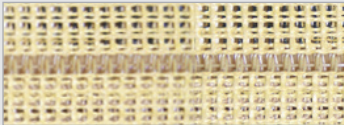
Clipper Splice

Individual metal hooks are installed in the ends of the belt and held together by a metal pin.



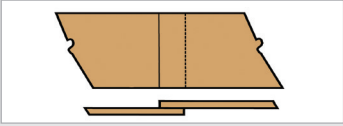
Fabric Pin Splice

Castellated loops on belt ends are joined together with a Fiberglass or polyamide-imide (PAI) pin.



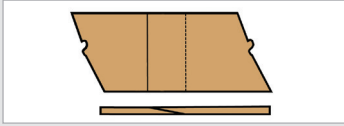
PEEK Spiral Splice

Temperature resistant plastic spiral lacing joins the ends which allows for airflow throughout the splice area.



Heat Sealed Overlap

A standard splice for most applications. Belt ends are overlapped by 0.5 - 2 inches, and then heat sealed together.



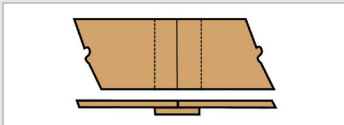
Scarf Splice

Ends are tapered and overlapped by 1", then heat sealed.



Finger Splice

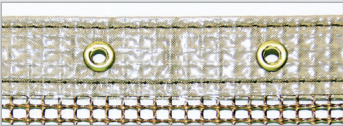
Die-cut fingers are inter-joined, reinforced, and heat sealed into place providing a flat, continuous release surface.



Heat Sealed Butt

Ends are butted together and a reinforcing fabric layer is heat-sealed beneath the joint.

Tracking



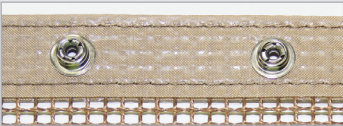
Grommets (Eyelets)

Metal reinforced openings are installed to mate with belt tracking systems that use chains and springs.



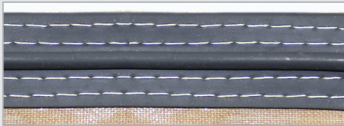
Silicone Bead

The enclosed bead, stitched into PTFE / Glass edge, runs outside the edge of the roller to keep the belt aligned.



Domes

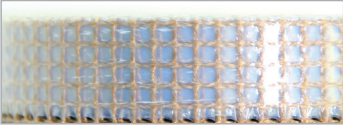
Raised metal rivet-like domes mate with grooved roller tracking systems.



Silicone Bead & Flange

A raised Silicone bead, with flange, is designed for grooved roller tracking systems.

Edge Options



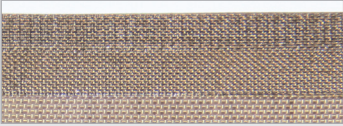
PTFE Film Edge

PTFE film, heat-sealed to the outer edges prevents fraying, but does not provide any additional strength or support.



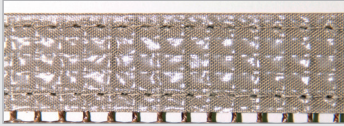
PTFE Sewn Only

PTFE / Glass fabric, fastened to belt edge with two rows of stitching, provides a cost effective edging option.



Sealed Only

PTFE / Glass fabric, heat-sealed to the belt edges, provides protecting against fraying while and adds support to the belt.



PTFE / Glass Fabric, Sewn & Sealed

Our most commonly used edge option, 6 mil Glass fabric is sewn & sealed for reinforcement.



# The Green Belting Advantage

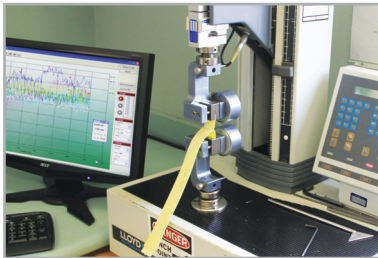
At Green Belting Industries, our approach to producing quality performance materials contemplates the vast range of unique applications and possibilities, from routine to complex, and from harsh to extreme. Our line of PTFE, Silicone, and Aramid fabrics meets a diverse range of barrier, release, belting, 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...

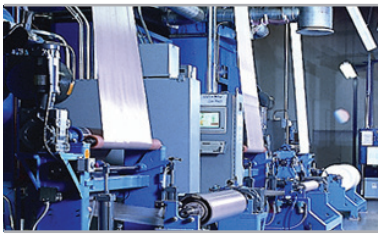
Green Belting Industries offers the highest quality PTFE and Silicone coated fabrics, tapes, belts, pre-cuts, and nested kits for a multitude of applications ranging from baking sheets to thermal spray masking for jet engine turbine blades. **Key performance attributes:**

- 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 four of our operating countries (Canada, USA, Italy, and the UK), beginning with your initial contact Green Belting Industries is with you every step of the way.



## Efficient Global Distribution

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

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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.

[www.greenbelting.com](http://www.greenbelting.com)

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