# Open Mesh Belting

FOOD DRYING RUBBER EXTRUSION ROTARY SCREEN PRINT DRYING BREAKFAST CEREAL SCREEN PRINT COSMETICS PACKAGING NON-WOVEN FABRICS HEAT-SHRINK TUNNEL BAKING CARPET PRODUCTION IN DUSTRIAL PACKAGING CHEESE DE-WATERING PRODUCE WASHING SYNTHETIC BATTING TEXTILES





## Performance Coated Open Mesh Belting - for a wide range of uses

Green Belting Industries Open Mesh Belting products are engineered to endure the demanding environments in a wide range of industries, from food production and packaging, to textiles and industrial manufacturing. In most of these environments, heat, moisture, chemical exposure and abrasion are typical challenges that our Open Mesh Belts can handle with relative ease. Expert custom fabrication, a half century of cumulative technical experience, and custom options, including several types of mesh, splices, edging, and tracking options, ensure the highest quality belting products to best suit the needs of your plant and machinery.



#### **Rotary Screen Print Drying**

Screen printing uses woven mesh belts to support an ink-blocking stencil. The stencil masks areas that are to be protected. The ink is then transferred through the open areas of mesh on to the unmasked printable target substrate and then dried. When the ink is applied, Green Belting Industries mesh belting conveys the printed product through the drying process.

P44-100 Polyester mesh may be used where temperatures do not exceed  $150^{\circ}$ C/302°F. For higher temperatures (that do not exceed  $287^{\circ}$ C/550°F), we recommend belts made with 30-89, 30-89 KK, or 30-95 KG PTFE coated Glass, Aramid, or Glass/Aramid mesh.



#### **Synthetic Batting**

Nonwoven sheets, composed of loose synthetic fiber (generally polyester or recycled plastics), are conveyed on mesh belts, heated, and fed through rollers to create the desired thickness. Thicker sheets are produced by stacking and fusing multiple layers. The use of heat-resistant mesh belts is important to convey the materials through the calibrated heat zones as the material reaches the target temperature. The openings in the mesh allow the heat to pass through, and promote cooling once the bonding process is complete. The non-stick surface prevents fibers from adhering to the conveyor belt.

For higher temperatures (that do not exceed 287°C/550°F), we recommend belts made with 30-89, 30-89 KK, or 30-95 KG PTFE coated Glass, Aramid, or combination Aramid/Glass mesh.



#### **Garment Silk Screen Drying**

Once the ink has been applied, open mesh belts are used to convey screened products through a heated drying oven. The open mesh allows unencumbered airflow to assist the drying process. Depending on the process and the temperatures, chemicals, and water involved, different types of mesh fabrics can be used, including PTFE coated Fiberglass, Aramid, or Uncoated Polyester.

For higher temperatures (that do not exceed  $287^{\circ}\text{C}/550^{\circ}\text{F}$ ), we recommend belts made with PTFE coated Glass, Aramid, or Aramid / Glass mesh. P44-100 Polyester mesh may be used where temperatures do not exceed  $150^{\circ}\text{C}/302^{\circ}\text{F}$ 



#### **Shrink Wrap Conveyor Belt**

Heat Shrink Packaging machines typically use open mesh conveyor belts to transport film-encapsulated products through a heated tunnel where heat is applied and the film wrapper shrinks and conforms tightly around the product. The open mesh belt must be strong, heat resistant, and have a non-stick surface coating to prevent bonding and accumulation of film material.

We recommend 30-89 Brown PTFE/Glass fabric with reinforced edges, and a mechanical splice.



#### Food / Bean Drying

As grains and beans are processed into food products such as cereals and packaged beans, drying ovens are often used to either bake or dehydrate the product prior to packaging. Open mesh belts are used in drying / moisture removal applications because airflow is generally required.

Where oven temperatures do not exceed  $287^{\circ}$ C/550°F, we recommend PTFE coated Fiberglass or Aramid mesh belts for drying applications. Because of its moisture-resistant nature, Aramid fabric is better suited in high humidity environments. The size of the mesh windows or openings (1mm or 4mm) is determined by the size of the food/grain throughput.

## **Custom Belt Fabrication**

Our belts are used globally by a wide variety of industries and are meticulously fabricated to meet customers specific applications. To assure the highest quality belting, the entire manufacturing process is controlled and supervised by experienced technical staff. All fabric used in the production of belting products is inspected and approved to meet the highest standard of quality.

## **Mesh Fabrics**



#### 30-80 KK

- PTFE coated Aramid
- 1mm x 1mm Plain Weave



#### 30-90

- PTFE coated Fiberglass
- 1mm x 1mm Plain Weave



#### 30-89 KK

- PTFE coated Aramid
- 4mm x 4mm Leno Weave
- For High Moisture Conditions



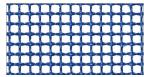
#### 30-91

- PTFE coated Fiberglass
- 1mm x 1mm Leno Weave for **Enhanced Stability**



#### 30-89 BLK

- PTFE coated Fiberglass
- **UV Block Coating**
- 4mm x 4mm Leño Weave



#### 30-96 Blue

- PTFE coated Fiberglass
- 4mm x 4mm Leno Weave
  - Wet or Dry Processes, .e.g. Food



#### 30-95 K

30-98 BR

- PTFE coated Aramid and Fiberglass
- 4mm x 4mm Leno Weave

PTFE coated Fiberglass

6mm x 6mm Leno Weave for



30-89 BR

- PTFE coated Fiberglass
- 4mm x 4mm Leno Weave



P44-100

- Uncoated Polvester Mesh
- 1mm x 1mm Plain Weave
- Cheese & Produce De-watering

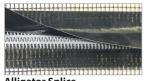
#### **Enhanced Stability Mesh Fabric Physical Properties**

Product	Material	Opening	Weave	Max Width		Nom. Thickness		Nom. Weight	
		(mm)		(in)	(mm)	(mil)	(mm)	(oz/yd²)	$(g/m^2)$
30-80 KK	Aramid / Aramid	1x1	Plain	197	5000	24	0.60	10.3	350
30-89 BR	Glass / Glass	4x4	Leno	156	3960	35	0.89	10.3	451
30-89 BLK	Glass / Glass	4x4	Leno	156	3960	35	0.89	13.3	451
30-89 KK	Aramid / Aramid	4x4	Leno	197	5000	35	0.89	8.5	288
30-90	Glass / Glass	1x1	Plain	197	5000	25	0.64	16.0	542
30-91	Glass / Glass	1x1	Leno	132	3350	25	0.64	13.5	458
30-95 K	Aramid/ Glass	4x4	Leno	130	3300	40	1.00	14.0	475
30-96 Blue	Glass / Glass	4x4	Leno	142	3600	47	1.20	21.0	710
30-98 BR	Glass / Glass	6x6	Leno	130	3300	48	1.20	14.7	500
P44-100	Polyester	1x1	Plain	78	2000	36	0.91	12.0	400
Product data is subject to change. Contact your representative for more details.									



PTFE / Glass fabric edges are heat-sealed on a mesh dryer belt.

### **Splices**



**Alligator Splice** 

Metal lacing, joined by a metal pin offers an exceptionally strong splice, shown here with optional cover flap.



**Clipper Splice** 

Individual metal hooks fastened to belt ends and joined together by a metal pin.



**PEEK Spiral Splice** 

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



**OMAF Splice** 

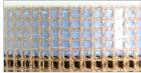
Flexible Aramid loops offer highstrength, optimize airflow and minimize product marking.



**Fabric Pin Splice** 

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

#### Edging



PTFE Film

The film edge prevents fraying but doesn't give the belt any additional strength or support.



The most common edge option, 6 mil Glass fabric is sewn & sealed to belt edges for reinforcement.



**PTFE Sewn Only** 

Our most 'value conscious' edging, PTFE / Glass fabric is fastened to belt edges with two rows of stitching.

#### Tracking



#### Grommets

Metal reinforced holes are designed for tracking systems that use chains and springs.



#### **Domes**

Metal domes installed in the belt edge align with grooved roller tracking systems.



#### Silicone Bead & Flange

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



#### **Aramid Cord**

A braided Aramid cord, stitched to belt edge, aligns with grooves in grooved roller tracking systems.

## 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 costeffective, 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 guick 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.

#### **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

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