

**Advanced Flexible Composites** 

# **DuraFab® Industrial Belting (20 Series)**



# **Description**

The DuraFab® Industrial Series is AFC's most extensive and most popular belting series, serving the widest range of industrial applications. These belts are manufactured from woven fiberglass substrates, possess an optimal PTFE content, and leave a minimal fabric impression. As the workhorse of AFC's belting line, DuraFab® Industrial Belting provides the highest value to customers by offering an excellent balance between heat transfer, release, and flexibility.

#### What is PTFE?

Polytetrafluoroethylene (PTFE), a **fluorocarbon plastic**, is a plastic in which the hydrogen normally found in association with carbon in organic materials has been replaced with fluorine. The resulting polymer possesses a number of unique properties: inertness to chemicals; fire resistance (will not support a flame); excellent weathering resistance; low friction (**second only to ice**); superior release (anti-stick) properties; flexibility; extreme heat and cold resistance; outstanding electrical, insulative and dielectric properties; and resistance to ultraviolet (UV), infrared (IR), microwave and radio frequency (RF).

#### **DuraFab® PTFE Coated Belt Characteristics**

DuraFab® Belts are engineered to retain the distinctive properties of PTFE; however, by adding a glass fabric to the matrix, AFC is able to obtain the added benefits of dimensional stability, excellent tensile strength and extremely low elongation (<1%). DuraFab® Belts have received USDA approval for food processing and handling, and are FDA compliant (21 CFR177.1550). In addition, the DuraFab® belts can operate in temperatures from -400°F (-240°C) under static conditions and -100°F (-73°C) under dynamic conditions up to 550°F (288°C).

# **Typical Applications**

#### **Packaging:**

- Rotary band sealing
- Form fill and seal
- Over wrapping (Tray packing)
- Side and End sealing
- Bundling

#### **Food Processing:**

- Manufacture of tortillas, pizza crusts and pitas
- Baking and cooling of bakery goods and confectionary
- Cooking and grilling of meat, poultry, fish and vegetables
- Cryogenic/flash freezing of meat, poultry, fish and vegetables
- Manufacture of flavorants

#### **Printing and Textiles:**

- Heat transfer press sheets
- Fabric lamination
- Garment fusing
- Processing of natural, synthetic, woven, nonwoven, and knitted fabrics

### **Polymer Processing**

- Curing and drying of rubber, sponge, foams, and polyurethane glues
- Manufacture of rubber and vinyl (PVC) backed carpet mats
- Processing of polyethylene
- Cooling of bitumen backed tiles
- Curing of ceramic tiles

#### **Building Products:**

Manufacture of specialty wood-based products

#### **Chemical Processing:**

- Tank seals and contaminant barriers
- Gaskets, membranes, seals and diaphragms
- Corrosion resistant chute, drum, and hopper liners
- Protective curtains and aprons

#### **Pulp and Paper:**

■ Tissue side sealing

#### Other:

■ Production or recycled plastic sheet

# Why AFC?

The company's track record of accomplishment, coupled with its vast experience, makes it the logical business partner for customers interested



customers interested in success. AFC makes the difficult look routine.

# **Core Values**

#### **Innovation**

AFC has a history of developing new and innovative products for its customers. Evidence of their innovation can be seen in its listing of proprietary products and its patent activity.

"AFC has developed new products for us to bring to our customers. A small company like ours could



not survive without a partner like AFC." AFC Customer

#### Quality

AFC has dedicated itself to meeting the most rigorous standards in each product it is involved in producing, with particular focus placed on quality production techniques.

"We have dealt with several manufacturers, and AFC's product quality is superior, as is their customer service. AFC is always helpful; if an immediate answer is not available, a call back is always received promptly. I look forward to many more years of working together."

AFC Customer

#### Service

The cornerstone of AFC's success has been its steadfast commitment to customer service and satisfaction.

"AFC's delivery history and customer service have helped us grow our sales in new markets. Their technical assistance and customer service has helped us grow our business. We are proud to

have them as a member of our team."

AFC Customer



Additional applications exist. Contact AFC for more specific information.

# **DuraFab® Belt Design Guide (Industrial Series)**

#### 1. Select Material Style (from table below)

Product	Nominal Thickness	Weight	Tensil Warp <sup>1</sup>	Tensil Fill <sup>1</sup>	Edge Tear Warp	Edge Tear Fill	Recommended	Full Widths
ID	inches	lbs/sq yard	lbs/inch	lbs/inch	OZ	OZ	Min. Pulley Dia.	inches
20-03	.003	0.27	99	60	13	9	3"	40, 80
20-05	.005	0.44	177	171	28	28	3"	40, 80*
20-06	.006	0.54	175	190	28	28	3"	40, 80*
20-25	.025	1.50	672	664	225	225	8"	38, 60

<sup>\*</sup> Please note: Additional thickness and styles available upon special order. Lead times may vary for different styles and widths.

#### 2. Determine Belt Dimensions

- a. Width (edge to edge)
- b. Net Endless Length (continuous [closed] belt length)

If your existing belt is in good condition: Lay belt on the floor and measure from one end of the belt to the other end.

If your belt is badly deteriorated: Center the take-up pulley and measure the path of the belt through the dryer using a tape measure. <sup>1</sup>Disclaimer: All figures provided in the above table are based upon ASTM D 4969-97, the Standard Specification for Polytetrafluoroethylene (PTFE) Coated Glass Fabric. The above PIW values are based upon the ASTM D828 test method and are not actual values of AFC's materials. The above tensile values are 80% of the figures provided in Table 6 of specification D579. AFC states that its actual tensile will be greater than the above material specification and that actual tensile values will be provided upon request. Edge Tear values are based upon ASTM D1424 (Elmendorf Tearing Test) and are average values that can vary.

#### 3. Edge Reinforcements:

- 1 Side/1 Edge Fiberglass
- 1 Side/1 Edge Kevlar® ■ 1 Side/2 Edges – Kevlar®
- 1 Side/2 Edges Fiberglass ■ 2 Sides/2 Edges – Fiberglass
- 2 Sides/2 Edges Kevlar®
- 1 Side/1 Edge PTFE Film
- 1 Side/2 Edges PTFE Film
- 2 Sides/2 Edges PTFE Film
- Custom or none

#### 4. Splices/Seam Type:



#### **Endless Splices**



Custom splices available, contact AFC for details. PTFE vs. Stainless Steel and

Lower maintenance costs: PTFE belts

absorb energy and provide much better

**Modular Plastic Belting** 

are non-stick and easy to clean

Energy savings: PTFE belts do not

Cost savings: PTFE belts are less

expensive to purchase and can be

expensive pulley and drive system

operated utilizing a simpler, less

#### 5. Splice Options (Can choose more than one)

- Flap over and/or under splice (Mechanical Splice)
- Molding over and/or under splice (Butt or Overlap Splice)
- Stitched Splice Stitched Flap
- Custom
- None

#### 6. Guiding and Tracking



**Dot Edge Guide** 1 or 2 Sides



Silicone Guide 1 or 2 Sides

#### Also available:

- Grommets (Fastening Only)

#### ■ Custom or None

#### **Tracking or Driving Problem?**

heat transfer

Contact your Distributor, OEM, or a member of AFC's Customer Service team to help determine the best belt and guide combination for your needs.

#### Sample Belt Design:

Material Style 20-05, Width-10", Length-129", Edge Reinforcement-1 Side/1 Edge (Fiberglass), 1" x 22" Overlap, Dots 1 Side-11/2" Centers, 1/2" from edge

#### **Fabrication Capabilities**

AFC offers the following fabrication capabilities and services for its fabrics:

- Conveyor belting
- Fabric and tape sheeting
- Belt and fabric perforating

- Specialty fabrication
- Custom die cutting
- Custom fabric and tape slitting

#### **Fabric Treatments and Specialty Coatings**

AFC can specially treat its fabrics to provide an adhesive (tape), bondable, abrasion resistant, or static-dissipative surface. In addition, the company also specialty coats fabrics to meet specific application needs.

Contact your local distributor or OEM to see for yourself the DuraFab® Advantage. Let AFC prove to you that it **Provides** Value Beyond Price.

#### **Exceptional Service**

With the shortest turnaround times in the industry, AFC has built its reputation upon its extraordinary service capabilities. Customer service hours are from 8:30 AM to 6:00 PM EST.

- Same Day Emergency Services: Most orders placed before 1:00 EST
- Next Day Emergency or Expedited
- Normal Service: Ships within 5 working days

#### **Belt Care**

When handling, do not fold or crease the belt. The material is susceptible to discoloration by ultra-violet light (turns white), but otherwise is unaffected by chemicals. To ensure maximum product life, be certain that the belt stays within its specified temperature range.

#### **Experience That Matters**

Many companies in the industry boast of long and proud histories. However, no company can match AFC's over 150 years of combined senior management

As an experienced leader, AFC welcomes the challenges that less experienced companies cannot address; AFC calls them opportunities. While many companies have come and gone during the last 15 years, AFC has proven itself time and again to be a solid, grounded and dependable business partner. One that prides itself as a self-motivating, entrepreneurial spirited company.



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