



**Products That Work
Service That Counts
Experience That Matters**

Advanced Flexible Composites

DuraFlow® Kevlar® Mesh Fabrics (507 series)



Description

DuraFlow® Kevlar® Mesh fabrics are manufactured from woven Kevlar® substrates that have been coated with PTFE. The DuraFlow® Kevlar® Mesh series is an excellent choice for heavy-duty applications or in drying applications where there is steam or moisture. DuraFlow® Kevlar® Mesh fabrics are dramatically higher in tensile and tear strengths. These fabrics are manufactured from proprietary woven Kevlar® with openings that range from 1/16" to 1/4."

What is PTFE?

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

Properties

DuraFlow® Kevlar® Mesh Fabrics are engineered to maintain their unique flexibility, dimensional stability, dielectric and tensile strength, and non-stick properties, while performing under the harshest environmental conditions. AFC's fabrics are abrasion, tear & puncture, and fire resistant, chemically resistant, and maintain their unique properties under pressure and extreme temperatures: -100°F to 575°F (-73°C to 302°C). DuraFlow® Kevlar® Mesh Fabrics have received USDA and NSF approval for direct food contact and are FDA compliant (21 CFR177.1550).

Benefits

- High tensile strength at low weight
- Low elongation to break high modulus (structural rigidity)
- Low electrical conductivity
- High chemical resistance
- Low thermal shrinkage
- High toughness (work-to-break)
- Excellent dimensional stability
- High cut resistance
- Flame resistant, self-extinguishing
- Heavy Duty drying application
- Kevlar® is 5X stronger than steel on an equal weight basis, but lightweight & flexible at the same time.
- Higher UV resistance than glass
- Experiences no embitterment or degradation at -320°F.

Additional applications exist. Contact AFC for more specific information.

Why AFC?

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



DuraFlow® Kevlar® Mesh Fabrics Design Guide

1. Select Material Style (from table below)

Need help? Contact your Distributor, OEM, or a member of AFC's Customer Service team to help you determine the fabric that would be best for your application.

| Product ID | Color | Nominal Thickness (in) | Weight (lbs/sq yd) | Window Opening (in) | Tensil-Warp' (lbs/in) | Full Widths (in) |
|------------|--------|------------------------|--------------------|---------------------|-----------------------|------------------|
| 507-27 | Yellow | .027 | .31 | 3/16 | 350 | 85 |
| 507-42 | Yellow | .042 | .80 | 1/8 | 300 | 85 |
| 507-44 | Yellow | .044 | .95 | 1/8 | 300 | 85 |
| 507-48 | Yellow | .048 | .88 | 1/8 | 300 | 85 |

* Although material width is standard, additional lead-time may be required. Please note: Additional thicknesses, styles and widths available upon special request. Other colors are available in above styles. Consult factory.

Disclaimer: The above tensile values are from Table 6 of Specification D579 and actual tensile values will vary. AFC tests tensile strength to ASTM D828 and actual tensile values will be provided upon request.

2. Determine whether you desire full width or slit fabric:

- Full Width: Full width fabrics are available in the above widths and are ordered by lineal yard or lineal meter.
- Slit Width: Slit fabrics are available from 1/4" to the maximum width from the table and can be slit to the nearest 1/32". Slit fabrics are available in 18 and 36-yard rolls. (For slit roll availability contact AFC.)

3. Select Your Width:

- Full Width: the above table reflects the respective available product widths
- Slit Width: inches or millimeters

4. Select Your Length:

- Full Width: lineal yards or meters in any length required
- Slit Width: 18 or 36 yard rolls

Full Width Design Example:

Material Style-507-27, Full Width-85", Length-20 yards

Slit Roll Design Example:

Material Style-507-27, Width 10", Length-36 yards

Fabrication Capabilities

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

- Conveyor belting
- Custom fabric and tape slitting
- Custom die cutting
- Specialty fabrication
- Fabric and tape sheeting
- Belt and fabric perforating

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 DuraFlow® Advantage. Let AFC prove to you that it **Provides Value Beyond Price.**

Did You Know?

PTFE is reputedly the most inert substance used in industrial applications. Unaffected by all commonly known chemicals and solvents, it is only attacked by a few sodium and fluorine based compounds . . . and then, only under high temperature (300°C) and pressure conditions.

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 Services
- Normal Service: Ships within 5 working days

Fabric Care

When handling, do not fold or crease the fabric. 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 fabric 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 expertise.

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. Perhaps our customers say it best.

"When you consider service, reliability and quality, AFC is a consummate supplier. Add to those qualities their flexibility, innovative abilities and knowledgeable customer service staff with a "can do" attitude, you have a company that makes doing business a truly pleasurable experience."

AFC Customer



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