

CASE STUDY #1

Situation: Boxed Facial Tissue

Scenario: This end user manufactures facial tissues packaged in cardboard boxes. The overwrapper holds together multiple boxes of tissues. The cardboard boxes are not easily collapsed; therefore, a shrink film is utilized.

Challenges: Most of the tissue boxes are the same height, causing the edge of the boxes to rub on the belt in the same spot. OEM belts would cut through the PTFE-coated fiberglass in about a week.

Solution: AFC designed a 7 mil PTFE-coated Kevlar® belt that resists cut through. Belt life increased to over a month. Other belt changes further increased belt life to about 6 weeks.

Not all PTFE Coated Fabrics are Created Equal

Factors such as coating weight and quality, Fluoropolymer (PTFE) type and content greatly affect product performance. AFC's focus on providing superior products that meet our customer's needs is what separates us from our competition.

Who is AFC?

AFC's goal is to advance your business. We take the time to fully understand your production process: What is the root cause of product failure? What are the associated costs of downtime? By pairing the right product with superior technical support and customer service, AFC is your strategic partner for high temperature and non-stick solutions.

Consider the following: conveyor belting, Subway sandwich ovens, space shuttles, and recycling technology. How are they related? AFC makes these diverse products possible. Since 1988, we have focused on providing innovative high temperature and non-stick solutions for a wide range of applications. Based in Lake in the Hills, Illinois, this private, family-owned organization has grown to four locations across the globe with over 150 employees. At every level, we are committed to solving problems and serving others.

Our core business is PTFE and silicone coated flexible composites. AFC engineers fabric, belting, and tape for demanding industries such as packaging, food processing, composite bonding, can manufacturing, vinyl window, and food service (among others).

CASE STUDY #2

Situation: Preventing incorrect installation

Scenario: Incorrect installation is a common problem for many end users. Most side sealer machines use two belts. One has a left orientation, and one has a right orientation. At virtually every end user, there will be an occasional switch, using a left-oriented belt where a right should be or vice versa.

Challenges: An installed belt with the wrong orientation will often fail prematurely at the splice. A second problem is belt tracking, also caused by installing with the wrong orientation.

Solution: To eliminate this problem, AFC offered two seam options running in either direction. This eliminated the need to stock both left and right belts. The same belt can be used in either position. One seam currently being supplied is a butt seam at a slight angle. The second seam option is a finger seam. Both seams are recommended to use a cover film on top of the seam to improve seam performance.



Side Sealer Belt Guide



Specialty Products
for the
Packaging Industry



AFCONLINE.COM



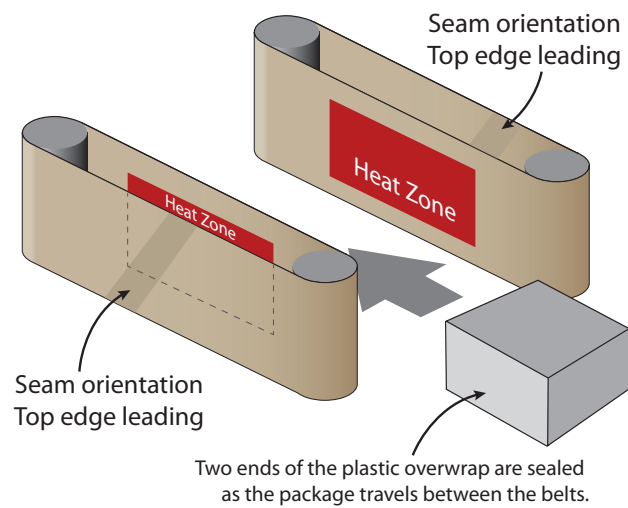
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The Side Sealer Packaging Process

The side seal packaging process uses two belts to heat seal a plastic overwrap on a package such as paper towels and napkins.

The plastic film is not a shrink wrap; it is a simple clear overwrap that is used to bundle multiple pieces of a product (typically paper). The overwrap passes through a heat sealing zone on each belt, which are usually PTFE coated fiberglass. As the package passes between the two belts, the ends of the overwrap are heat sealed.

The process is always a **high-volume** environment where the package and the belts are in **continuous motion**.



Material Options for Side Sealer Belts



(Shown with Overlap Splice)

Standard Performance: 63-06

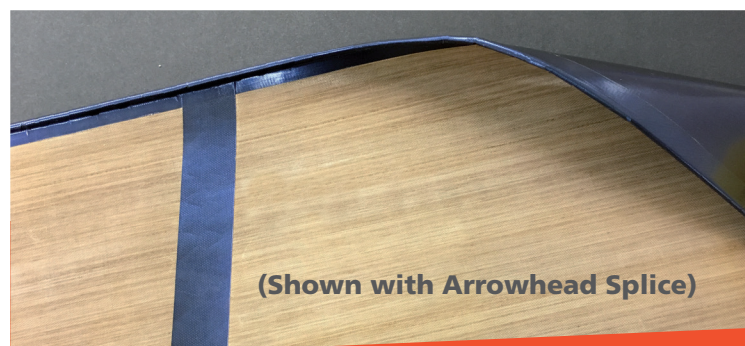
- Eterna® coating (excellent release properties)
- Crease and tear resistant
- Good flexibility
- Distinctive soft feel



(Shown with Butt Splice)

Better Performance: 60-07

- Better performance product
- Eterna® coating (excellent release properties)
- Better tensile and tear strength



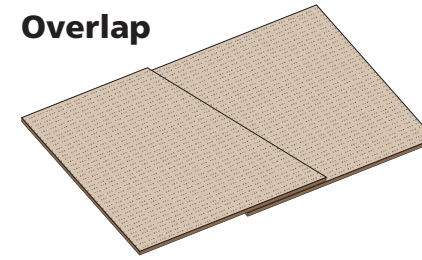
(Shown with Arrowhead Splice)

Best Performance: 4207LN

- Eterna® coating (Excellent release properties)
- Plied product
- Higher tensile and tear strength

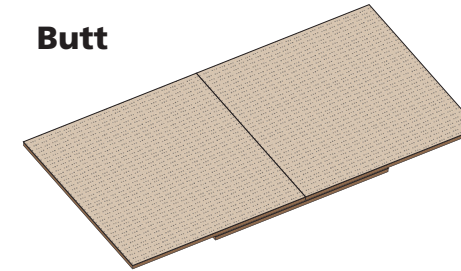
Splice Options

Overlap



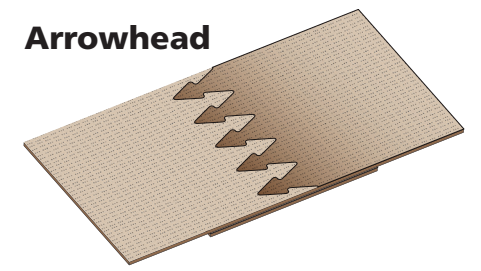
- Standard splice
- Right hand or left hand direction

Butt



- Better performance splice
- Bidirectional
- Eliminates the need for RH / LH stocks

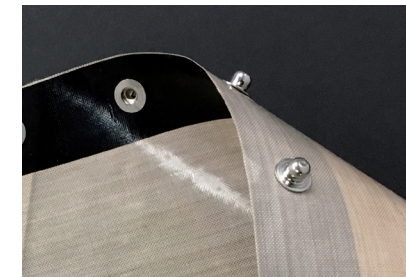
Arrowhead



- Best performance (stronger seam)
- Bidirectional

Guide Options

Small Metal Dots



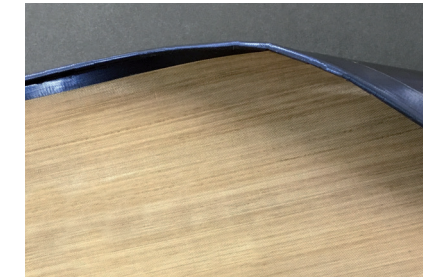
- Standard performance

Silicone Guides



- Better performance
- Sewn on guides

Duratrack Guides



- Best performance
- Encapsulated and sealed into the belt

NOTE: Dots and Duratrack Guides are available in large and small configurations.

Side Sealer Material Comparison

Features	Good	Better	Best	
	63-06	60-07	4207LN	ASTM
Substrate	Woven Fiberglass	Woven Fiberglass	Woven Fiberglass	D579
Color	Tan	Tan	Blue & Tan	D4969
Coating	PTFE	PTFE	PTFE	D4969
Nominal Thickness (in.)	.006	.007	.0065	D4969
Coated Weight (lbs. /sq. yd.)	0.54	0.64	.62	D4969
Tensile, Warp (lbs. /in.)	100	185	160	D902
Tensile, Fill (lbs. /in.)	95	80	80	D902
Tear, Warp (oz.)	30	55	80	D5587
Tear, Fill (oz.)	25	60	70	D5587
Elongation Till Break (%)	~3	~3	~3	
Operating Temperature (°F)	-100 to 550	-100 to 550	-100 to 550	
Food Safe	FDA compliant	FDA compliant	FDA compliant	21CFR 170-199