

**LINERS FOR PLASTIC CLOSURES****LINER DEFINITIONS**

## Primary Backing Liners\*

<b><u>LINER</u></b>	<b><u>NAME</u></b>	<b><u>DESCRIPTION</u></b>
<b><u>LDPE/FOAM/LDPE</u></b>	F-217 F-217-3	Coextrusion of low-density polyethylene/foamed Polyethylene/ low-density polyethylene. F-217-3 is a higher density than F-217.
<b><u>PW</u></b>	Pulp Waxed	Clay coated pulpboard with .001" to .002" was coating on one side
<b><u>P/SF</u></b>	Pulp & Saran Film	75-gauge saran film laminated to white paper & bonded to pulpboard
<b><u>P/PE</u></b>	Pulp & Polyethylene Coated Paper	.0015" polyethylene coated white paper laminated to pulpboard
<b><u>P/VAF</u></b>	Pulp & Vinyl Coated Aluminum Foil	White pigmented vinyl coating on .0035" aluminum foil laminated to pulpboard
<b><u>P/RVTLF</u></b>	Pulp & Polyvinyl w/ Lubricant finish	Vinyl coating applied to high-density polyethylene coated white paper laminated to pulpboard, w/ lubricant finish (LF) over vinyl coating
<b><u>P/SAF</u></b>	Pulp & Saran Coated Aluminum Foil	White pigmented saran coating applied to .00035" aluminum foil w/ white paper backing, laminated to pulpboard
<b><u>Tech-Seal .035 P/TS IIIA</u></b>	Pulp & Saran coated LDPE	Saran coating applied to a white opaque low density Polyethylene coated bleached Kraft paper laminated to .035" pulpboard
<b><u>P/.0015 AF</u></b>	Pulp & Aluminum Foil	Aluminum foil (.0015") laminated to paper & then laminated to pulpboard
<b><u>P/.0015 TF</u></b>	Pulp & Tin Foil	Tin foil (.0015") laminated to paper then laminated to pulpboard
<b><u>PY</u></b>	Solid Polyethylene	Solid extruded polyethylene
<b><u>Foam .020", .030", .035", &amp; .040"</u></b>	P.S. Foam	Polystyrene Foam
<b><u>P/MY</u></b>	Pulp & Mylar	Mylar (polyester) film applied to a white paper, laminated to pulpboard
<b><u>P/AF PET</u></b> P/SA-66, P/MF-514 P/ESTERFOIL 50 & P/TS VII	Pulp & Polyester Aluminum Foil	Polyester film applied to white pigment polyethylene coated aluminum foil, bonded to Kraft paper & laminated to pulpboard
<b><u>P/PVDC PET</u></b> P/LASAN POLYETSERII, P/W-77 & P/TS VI	Pulp & Polyester PVDC	White paper-backed, polyester film, reverse side PVDC coated, laminated to pulpboard
<b><u>HDPE?Foam/HDPE</u></b>	F-422	Coextrusion of high-density Polyethylene/foamed low-density Polyethylene/high-density polyethylene
<b><u>TFE</u></b>	Solid Teflon	Solid unpigmented .030" polyetraflouroethylene

\*See pages 12 &amp; 13 for pricing

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Induction Heat Seals .035" WLP Backing\*

**LINER NAME****DESCRIPTION****Foil-Seal M-I**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles, provides a weld seal.

**Foil-Seal 1-7**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat seal layer. For polyethylene bottles; provides a weld seal.

**Foil-Seal 3-19**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PET & PVC bottles.

**Foil-Seal M-IV**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil with a polyester Film & a heat seal layer. For polypropylene bottles; provides a weld seal.

**Foil-Seal 4-6**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil with a heat seal Layer. For polypropylene bottles; provides a weld seal.

**Foil-Seal 1-15**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil with a polyester Film & a heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.

**Safe-Gard 75M**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil with a polyester Film & a heat seal layer. For polyethylene bottles, provides a weld seal.

**Safe-Gard 90**

White line pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PET & PVC bottles.

**Safe-gard 100**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ heat a seal layer. For polyethylene bottles; provides a weld seal.

**Safe-Gard 101**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ heat a seal layer. For polyethylene bottles; provides a weld seal.

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Induction Heat Seals .035" WLP Backing\*

**LINER NAME****DESCRIPTION****HS-130**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles; provides a weld seal.

**HS-123**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat seal layer. For polyethylene bottles; provides a weld seal.

**HS-165**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PET & PVC bottles.

**HSL-1**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles; provides a weld seal.

**HSL-1.0**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat seal layer. For polyethylene bottles; provides a weld seal.

**HSL-3**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PET & PVC bottles.

**HSL-4**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polypropylene bottles; provides a weld seal.

**HSL-4.0**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a heat seal layer. For polypropylene bottles; provides a weld seal.

**HSL-2**

White lined pulpboard wax bonded to innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.

**HS-053**

White lined pulpboard wax bonded to innerseal consisting of .00035" aluminum foil bonded to white paper w/ a .0023" heat seal coating on paper.

**HS-035**

White lined pulpboard wax bonded to innerseal consisting of paperbacked .00035" aluminum foil w/ .0023" heat seal coating foil.

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## Single Element Induction Heat Seals\*

<b><u>LINER NAME</u></b>	<b><u>DESCRIPTION</u></b>
<b><u>S105/FS 1-15</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film w/ a heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.
<b><u>S55/S 1-15</u></b>	Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a polyester film & heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.
<b><u>S105/FS 3-19</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.
<b><u>S55/FS 3-19</u></b>	Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.
<b><u>S105/FS M-1</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles; provides a weld seal.
<b><u>S105/FS M-IV</u></b>	Foam (.010") backed innerseal consisting of .001 aluminum foil w/ a polyester film & a heat seal layer. For polypropylene bottles; provides a weld seal.
<b><u>ISPE/PP-U10</u></b>	Foam (.010") backed innerseal consisting of .001 aluminum foil w/ a polyester film & a heat seal layer. For polyethylene & polypropylene bottles. Provides a peelable seal.
<b><u>ISPE/PP-U5</u></b>	Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a polyester film & heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.
<b><u>ISPVC/PET-U10</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.
<b><u>ISPVC/PET-U5</u></b>	Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.
<b><u>ISPE-U10</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles; provides a weld seal.
<b><u>ISPP-U10</u></b>	Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polypropylene bottles; provides a weld seal.

\*See pages 18 &amp; 19 for pricing.

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## Single Element Induction Heat Seals\*

**LINER NAME****DESCRIPTION****HSF-1/10**

Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene bottles; provides weld seal.

**HSF-2/10**

Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.

**HSF-2/5**

Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seal layer. For polyethylene & polypropylene bottles; provides a peelable seal.

**HSF-3/10**

Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.

**HSF-3/5**

Foam (.005") backed innerseal consisting of .001" aluminum foil w/ a heat sealable polyester film. For PVC & PET bottles.

**HSF-4/10**

Foam (.010") backed innerseal consisting of .001" aluminum foil w/ a polyester film & a heat seallayer.

**HS-035/Foam**

Polystyrene foam adhesive bonded to paper-backed .00035" aluminum foil w/ .0023" heat seal coating.

\*See pages 18 & 19 for pricing.

**LINERS FOR PLASTIC CLOSURES****LINER DEFINITIONS****Pressure Sensitive & Adhesive Mount Innerseals****LINER NAME****DESCRIPTION****PS-22**

Pressure sensitive innerseal: pressure sensitive adhesive coated on polystyrene foam.

**57# Glassine**

Adhesive Mount Innerseal: Two 25# Glassine bonded together w/ 7# of wax based adhesive.

**Induction Heat Seals Pulp/PVDC/PET Backing****Foil-Seal E/M-I**

Pulp (.020") w/ PVDC/PET wax bonded to innerseal consisting of .005" paper adhesive bonded to .001" aluminum foil w/ a polyester film & Heat seal layer. For polyethylene bottles; provides a weld seal.

**Foil-Seal E/1-7**

Pulp (.020") w/ PVDC/PET wax bonded to innerseal consisting of .005" paper adhesive bonded to .001" aluminum foil w/ heat seal layer. For polyethylene bottles; provides a weld seal.

**Foil-Seal E/3-19**

Pulp (.020") w/ PVDC/PET wax bonded to innerseal consisting of .005" paper adhesive bonded to .001" aluminum foil w/ heat sealable polyester film. For PET & PVC bottles.

**Foil-Seal E/M-IV**

Pulp (.020") w/ PVDC/PET wax bonded to innerseal consisting of .005" paper adhesive bonded to .001" aluminum foil w/ a polyester film & a heat seal layer. For polypropylene bottles; provides a weld seal.

**Heatseal Cross-Reference Chart**

<b>Manufacturer</b>	<b>Induction Heatseals .035" WLP Backing</b>				
Tekni-Plex	HS-130	HS-123	HS-165		
Selig	Foilseal M-I	Foilseal 1-7	Foilseal 3-19	Foilseal M-IV	Foilseal 4-6
Unipac	Safe-Gard 75M	Safe-Gard 100	Safe-Gard 90		SafeGard101
Tech-Seal	HSL-1	HSL-1.0	HSL 3	HSL-4	HSL-4.0
<b><u>Bottle Resin</u></b>					
PE	X	X			
PVC/PET			X		
PP				X	X

<b>Manufacturer</b>	<b>Single Elements Induction Heatseals</b>			
Selig	S105/FSM-I	S105/FS1-15	S105/3-19	S105/M-IV
Unipac	ISPE-U10	ISPE/PP-U10	ISPVC/PET-U10	ISPP-U10
Tech-Seal	HSF-1/10	HSF-2/10	HSF-3?10	HSF-4/10
<b><u>Bottle Resin</u></b>				
PE	X (weld seal)	X (peelable)		
PVC/PET			X (peelable)	
PP		<u>X (peelable)</u>		X (weld seal)