

Driving innovation in healthcare packaging

2022 Product Guide

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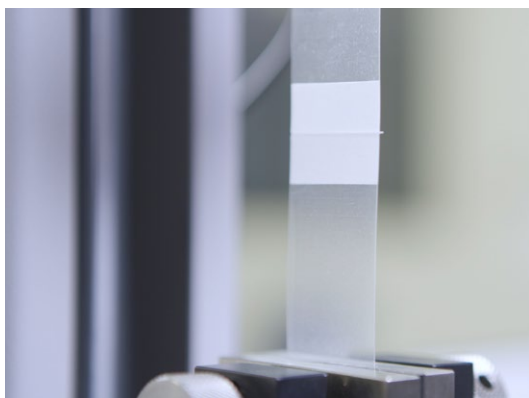
Who We Are

Oliver Healthcare Packaging provides packaging solutions for Medical Device, Pharmaceutical and Drug Delivery, and Diagnostics needs across the globe.

Our packaging is designed and manufactured to the healthcare industry's highest standards, providing our customers with the confidence they need to deliver life-saving and life-enhancing products.



Oliver's singular focus on healthcare packaging, combined with our technical expertise, enables us to deliver innovative and valuable solutions to our customers.



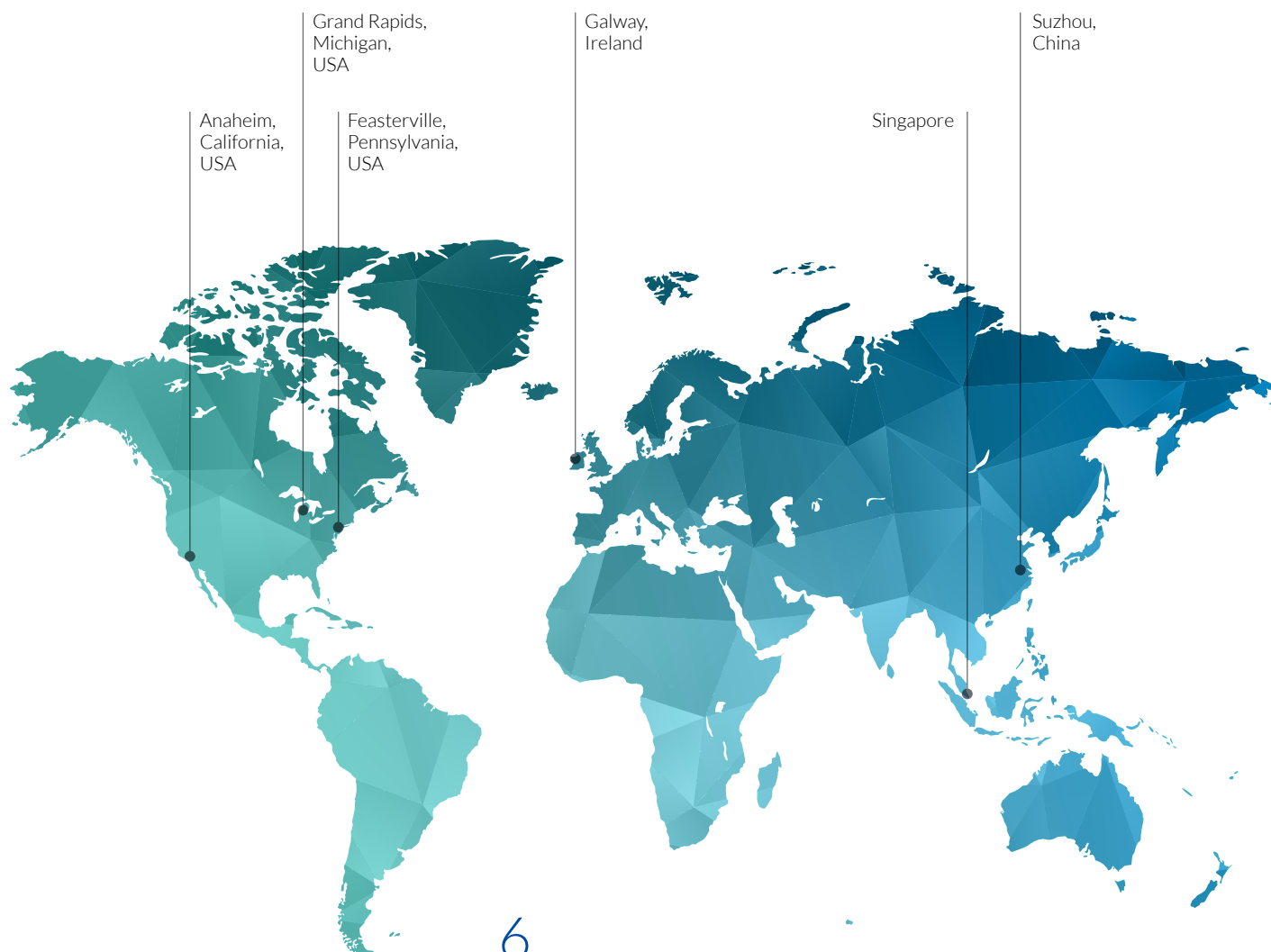
Leverage our team of experts and lab capabilities to support:

- Material selection and design recommendations
- Prototyping
- Packaging failure analysis and troubleshooting
- Solutions for cost reduction and increased productivity
- Navigation of ISO 11607 and other global regulation requirements

Product Samples

Printed marketing samples, custom samples, and samples for validation and PPAP activities are all available to support your project needs. Please contact your Oliver sales representative for more information.

Technical Labs



6 Technical Lab facilities

Our Technical Services team is comprised of a group of healthcare packaging experts with a combined 120 years of experience, located in 6 Technical Lab facilities across the globe.

Manufacturing Facilities

Oliver's manufacturing facilities are ISO 13485 certified for the design and manufacturing of medical packaging.



7 Manufacturing facilities

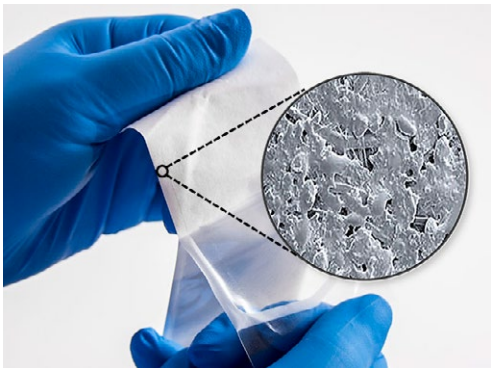
- Grand Rapids, Michigan, USA
- Anaheim, California, USA
- Feasterville, Pennsylvania, USA
- Hamilton, Ohio, USA
- New Britain, Pennsylvania, USA
- Venray, Netherlands
- Suzhou, China

Several facilities are outfitted with certified ISO 7 and/or ISO 8 cleanrooms.



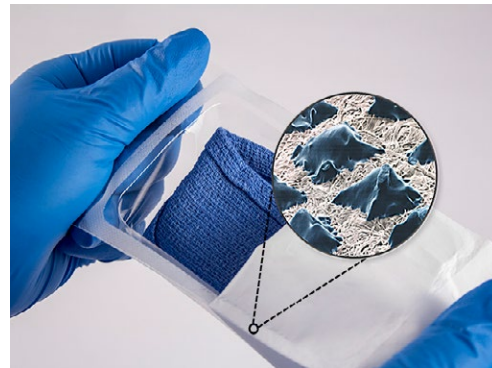
Oliver's SealScience water-based and Xhale hot-melt adhesive technologies offer superior seal and peel characteristics for Pouch and Lid applications.

With formulations that meet a variety of product and packaging requirements, these adhesive coatings mitigate risks related to fiber tear and delamination, provide a visual indicator of seal integrity, and create a uniform peel for easier, more controlled aseptic presentation.



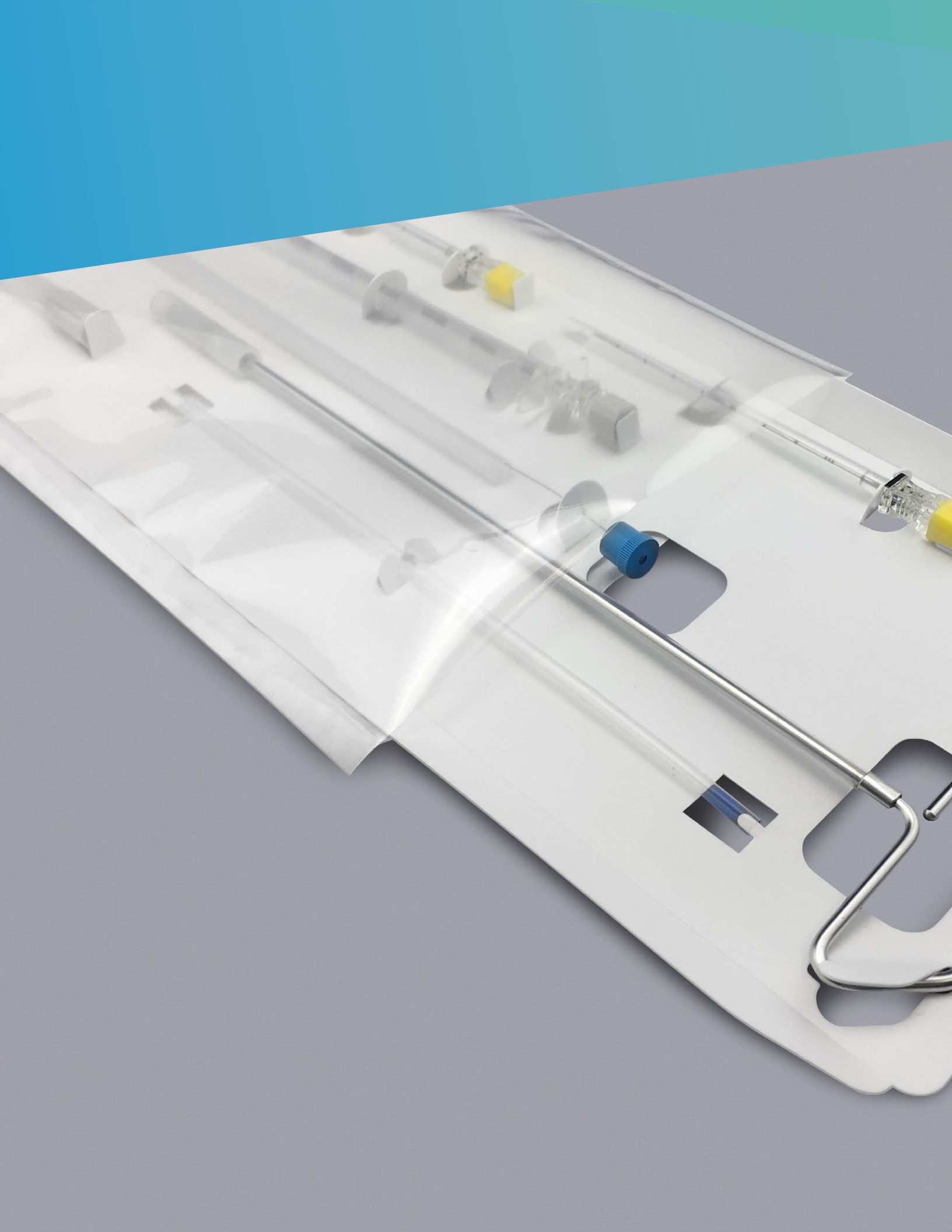
SealScience Water-Based Adhesives

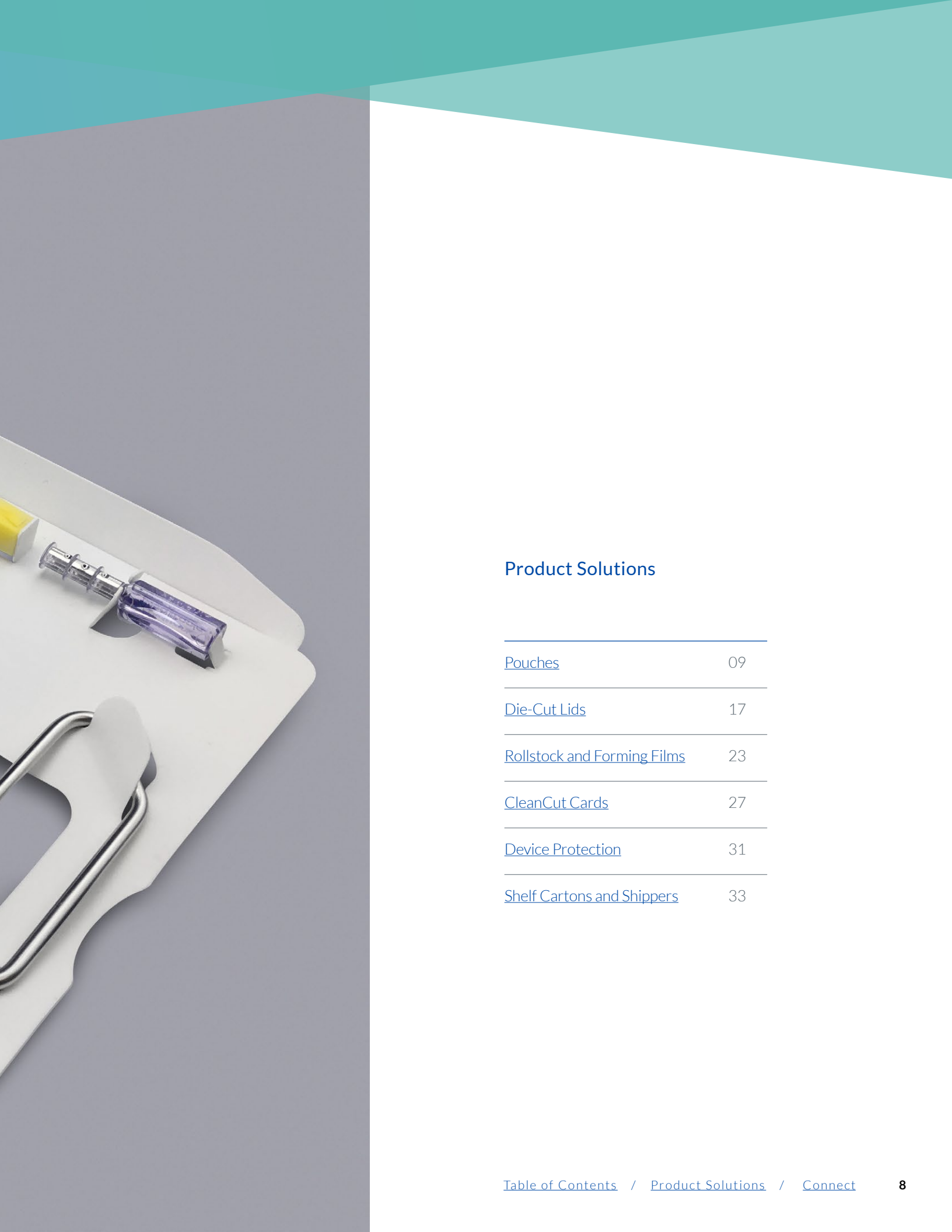
- Air knife coating process leaves behind the necessary amount of adhesive
- Works well with all types of sealing equipment and a wide range of sealing parameters
- Available in blue tint for enhanced visual indication of seal integrity
- Excellent cold shock and sterilizer creep resistance
- Formulations available for EtO, Gamma Radiation, Steam/Autoclave, and Dry-Heat sterilization methods



Xhale Hot-Melt Adhesives

- Gravure coating process applies 100% solids in a uniform dot pattern
- Offers maximum porosity and substrate breathability, reducing the risk of packaging failures
- Exceptional adhesive anchorage, virtually eliminating particulates
- Available in blue tint for enhanced visual indication of seal integrity
- Formulations available for EtO, Gamma Radiation, and Steam/Autoclave sterilization methods

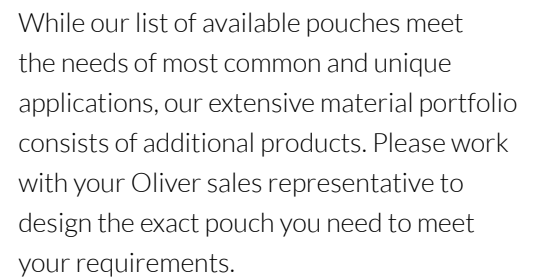




Product Solutions

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Oliver offers a comprehensive selection of materials for custom pouch needs across a variety of sectors in the healthcare industry.





Tyvek Pouches

DuPont™ Tyvek® pouches provide outstanding resistance to microbial penetration helping to maintain sterility of your device.



Paper Pouches

Medical grade paper pouches are a cost-effective packaging solution for low profile devices that maintain product sterility right up until the moment of use.



Film Pouches

Film pouches are a cost effective solution that offer robust protection to stand up to radiation sterilization, while allowing for easy visual inspection.



Barrier Pouches

Foil and barrier film pouches meet your needs for medical device and pharmaceutical products that are sensitive to moisture, light, oxygen, or other gases.



Dispos-a-vent Pouches

All-in-one solution for moisture sensitive devices that require a gas sterilization cycle, driving the need for a combination of barrier and breathable materials; common for drug-eluting stents, bioresorbable devices, and sutures.



Ostasis Pouches

A robust, reinforced solution for heavy, bulky devices, or instruments in a tray; provides an opportunity for the tray to be a part of the surgical process and overall product, enhancing usability.

Product ID	Materials	Description	Substrate Color	Sterilization				Peelable	Application
				EtO	Radiation	Autoclave/ Steam	VHP		
02-0025	Tyvek/ PET Film	Uncoated 1073B Tyvek sealed to 48ga (12µm) PET film	White/Clear	●	●			●	Cost effective option for low profile, low puncture risk devices
02-0031	Tyvek/ PET Film	Uncoated 1073B Tyvek sealed to polyolefin laminated 48ga (12µm) PET film	White/Clear			●		●	Low profile devices requiring autoclave sterilization mode
02-0068	Tyvek/ PET Film	Uncoated 1073B Tyvek sealed to LDPE/EVA laminated 48ga (12µm) PET film	White/Clear	●	●		●	●	Low profile devices requiring VHP sterilization mode
02-0026	Tyvek/ PET Film	Uncoated 1073B Tyvek sealed to 92ga (23µm) PET film	White/Clear	●	●			●	Thicker PET layer offers added puncture resistance and tensile strength
02-0062	Tyvek/ PET Film	SealScience coated 1073B Tyvek sealed to 48ga (12µm) PET film	White/Clear	●	●			●	For low profile, low puncture risk devices with the added benefits of SealScience coating
02-0022	Tyvek/ PET Film	Xhale coated 1073B Tyvek sealed to 48ga (12µm) PET film	White/Clear	●	●			●	For low profile, low puncture risk devices with the added benefits of Xhale coating
02-0230	Tyvek/ PET Film	Uncoated 1073B Tyvek sealed to Biaxially Oriented 48ga (12µm) PET film	White/Clear	●	●			●	Cost effective option for low profile, low puncture risk devices Locally sourced in Europe
02-0122	Tyvek/ Nylon Film	Uncoated 1073B Tyvek sealed to 40ga (10µm) Biaxially Oriented Nylon film	White/Clear	●	●			●	Low cost option for devices that require added puncture and flex crack resistance
02-0030	Tyvek/ Nylon Film	Uncoated 1073B Tyvek sealed to 60ga (15µm) Biaxially Oriented Nylon film	White/Clear	●	●			●	Higher gauge Nylon for puncture risk devices
02-0229	Tyvek/ Nylon Film	Uncoated 1073B Tyvek sealed to 100ga (25µm) Biaxially Oriented Nylon film	White/Clear	●	●			●	High gauge Nylon offers highest level of protection against puncturing and flex cracking
02-0065	Tyvek/ Nylon Film	SealScience coated 1073B Tyvek sealed to 100ga (25µm) Biaxially Oriented Nylon film	White/Clear	●	●			●	High gauge Nylon protection with the added benefits of SealScience coating

*Also available with 1059B Tyvek substrate

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Barrier Pouches

Product ID	Materials	Description	Substrate Color	Sterilization	Peelable	Application	Barrier Properties
02-0049	Foil/Foil	35ga (9µm) foil sealed to itself	Silver/Silver	Radiation		All purpose barrier pouch	– Oxygen – Moisture – UV light
02-0104	Foil/Foil	35ga (9µm) foil with peelable sealant layer sealed to itself	Silver/Silver	Radiation	●	All purpose barrier pouch in a peelable structure	– Oxygen – Moisture – UV light
02-0043	Foil/Foil	SealScience coated 100ga (25µm) foil sealed to uncoated version of itself	Silver/Silver	Radiation	●	Puncture resistant barrier foil with a wide seal temperature range; not recommended for wet or moist products	– Oxygen – Moisture – UV light
02-0035	Foil/Foil	70ga (18µm) foil with peelable sealant layer sealed to itself	White/White	Radiation	●	Puncture resistant barrier foil with enhanced printability	– Oxygen – Moisture – UV light
02-0039	Foil/Foil	28.5ga (7µm) foil sealed to itself	Silver/Silver	Radiation		Cost effective barrier pouch for low profile devices	– Oxygen – Moisture – UV light
02-0032	Foil/Foil	Nylon laminated 70ga (18µm) foil with peelable sealant layer sealed to itself	White/White	Radiation	●	Barrier properties combined with the added puncture and flex crack resistance of Nylon with enhanced printability	– Oxygen – Moisture – UV light
02-0083	Foil/Foil	Nylon laminated 30ga (8µm) foil sealed to itself	Silver/Silver	Radiation		Barrier properties combined with the added puncture and flex crack resistance of Nylon	– Oxygen – Moisture – UV light
02-0050	Foil/Foil	100ga (25µm) foil sealed to itself	Silver/Silver	Radiation		High gauge foil and PET structure for added puncture resistance	– Oxygen – Moisture – UV light
02-0232	Foil/Foil	35ga (9µm) foil with peelable sealant layer sealed to itself	White/White	Radiation	●	All purpose barrier pouch in a peelable structure with enhanced printability <i>Locally sourced in Europe</i>	– Oxygen – Moisture – UV light
02-0233	Foil/Foil	Nylon laminated 31ga (8µm) foil sealed to itself	Silver/Silver	Radiation		Cost effective barrier pouch with the added puncture and flex crack resistance of Nylon <i>Locally sourced in Europe</i>	– Oxygen – Moisture – UV light
02-0228	Foil/Foil	35ga (9µm) foil sealed to itself	White/White	Radiation		Cost effective barrier pouch for low profile devices with enhanced printability <i>Locally sourced in China</i>	– Oxygen – Moisture – UV light
02-0054	AlOx PET/ AlOx PET	48ga (12µm) aluminum oxide PET film sealed to itself	Clear/Clear	Radiation		Offers full product visibility while still providing oxygen and moisture barrier properties	– Oxygen – Moisture
02-0058	AlOx PET/ AlOx PET	48ga (12µm) aluminum oxide PET film with peelable sealant layer sealed to itself	Clear/Clear	Radiation	●	Offers full product visibility in a peelable structure while still providing oxygen and moisture barrier properties	– Oxygen – Moisture
02-0057	Foil/AlOx PET	35ga (9µm) foil with peelable sealant layer sealed to 48ga (12µm) aluminum oxide PET film	Silver/Clear	Radiation	●	Offers product visibility and a surface for printing while providing oxygen and moisture barrier properties	– Oxygen – Moisture

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Paper Pouches

Product ID	Materials	Description	Substrate Color	Sterilization				Peelable	Application
				EtO	Radiation	Autoclave/ Steam	VHP		
02-0006	Paper/ PET Film	Xhale coated 60gsm non-reinforced paper sealed to 48ga (12µm) PET	White/Clear	●	●			●	Cost effective option for lightweight, low profile devices with the added benefits of Xhale coating
02-0010	Paper/ PET Film	SealScience coated 68gsm non-reinforced paper sealed to 48ga (12µm) PET	White/Clear	●	●			●	Cost effective option for lightweight, low profile devices with the added benefits of SealScience coating
02-0007	Paper/ PET Film	Xhale coated 80gsm reinforced paper sealed to 48ga (12µm) PET	White/Clear	●	●			●	Reinforced paper structure provides added material strength, combined with a low peel strength adhesive
02-0008	Paper/ PET Film	Xhale coated 114gsm reinforced paper sealed to 48ga (12µm) PET	White/Clear	●	●			●	Reinforced paper structure provides added material strength, combined with a higher peel strength adhesive
02-0009 (bl)	Paper/ PET Film	Xhale coated 114gsm reinforced paper sealed to 48ga (12µm) PET	White/Clear with blue adhesive tint	●	●			●	Reinforced paper structure provides added material strength, combined with a higher peel strength adhesive

(bl) = blue adhesive tint

Film Pouches

Product ID	Materials	Description	Substrate Color	Sterilization				Peelable	Application
				EtO	Radiation	Autoclave/ Steam	VHP		
02-0016	PET Film/ PET Film	48ga (12µm) PET film sealed to itself	Clear/Clear		●				Cost effective option for low profile devices offering complete product visibility
02-0017	PET Film/ PET Film	92ga (23µm) PET film sealed to itself	Clear/Clear		●				Thicker PET layer offers added puncture resistance and tensile strength while still offering complete product visibility
02-0102	PET Film/ PET Film	48ga (12µm) PET film with 2mil peelable sealant sealed to itself	Clear/Clear		●			●	Cost effective, clear, peelable structure for added aseptic transfer ease
02-0015	PET Film/ PET Film	48ga (12µm) metalized PET film with 2mil peelable sealant sealed to itself	Silver/Silver		●			●	Metalized PET film provides added UV barrier for sensitive devices
02-0231	PET Film/ PET Film	48ga (12µm) Biaxially Oriented PET film sealed to itself	Clear/Clear		●				Cost effective option for low profile devices offering complete product visibility Locally sourced in Europe
02-0053	Nylon Film/ Nylon Film	100ga (25µm) Biaxially Oriented Nylon film sealed to itself	Clear/Clear		●				High gauge Nylon offers highest level of protection against puncturing and flex cracking, while providing full product visibility
02-0018	Nylon Film/ Nylon Film	100ga (25µm) Biaxially Oriented Nylon film with 2mil peelable sealant sealed to itself	Clear/Clear		●			●	High gauge Nylon protection in a peelable structure for added aseptic transfer ease

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Dispos-a-vent Pouches (35 in/889 mm maximum pouch length)

Product ID	Materials	Description	Substrate Color	Sterilization			Peelable	Application	Barrier Properties
				EtO	Radiation	Autoclave/ Steam			
02-0044	Foil/Foil/ Tyvek	SealScience coated 100ga (25µm) foil lamination with 1073B Tyvek header	Silver/Silver	●	●		●	High gauge foil and PET structure for added puncture resistance	— Oxygen — Moisture — UV light
02-0036	Foil/Foil/ Tyvek	70ga (18µm) foil with peelable sealant layer with 1073B Tyvek header	White/White	●	●		●	Puncture resistant barrier foil with enhanced printability	— Oxygen — Moisture — UV light
02-0046	Foil/Foil/ Tyvek	50ga (13µm) foil with autoclave sealant with 1073B Tyvek header	Silver/Silver	●	●	●		Strong foil and PET structure for added puncture resistance, suitable for devices that require steam sterilization	— Oxygen — Moisture — UV light

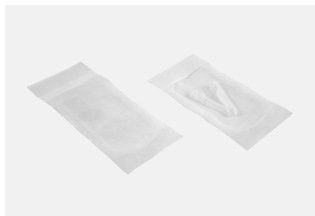
Ostasis Pouches (28.5 in/724 mm maximum pouch length)

Product ID	Materials	Description	Substrate Color	Sterilization		Peelable	Application
				EtO	Radiation		
02-0060	Tyvek / PET Film	SealScience coated 1073B Tyvek sealed to 48ga (12µm) PET film	White/Clear	●	●	●	A reinforced Tyvek pouch for bulky devices
02-0061	Tyvek / Nylon Film	SealScience coated 1073B Tyvek sealed to 100ga (25µm) Biaxially Oriented Nylon film	White/Clear	●	●	●	A reinforced Tyvek pouch that provides added strength for heavy or puncture risk devices

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Pouch Design Capabilities

Your pouch can be manufactured to include specialty design features that meet your unique sterilization, manufacturing, print, opening, and/or storage requirements.



Self Seal Pouch

Solution for at-home diagnostics that require the consumer or customer to send their test kit/device back to a specific location

(NOTE: Pouch length maximum of 35 in/889 mm; pouches > to 20 in/508 mm in length are recommended to use 1.75 in/44.5 mm wide tape)



Hang Hole or Hang Tab

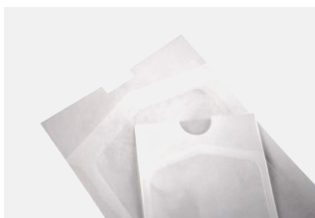
Common feature for health facilities that store devices upright to prevent damage, such as avoiding kinks in catheters; hang tabs are useful for heavier products



Chevron, Corner, or Double Corner Peel

Chevron peel designs evenly distribute peel forces along the length of the pouch, resulting in better control when aseptically presenting a product

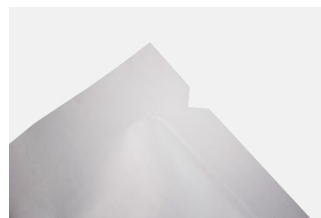
Corner peels create an intuitive opening solution for flat-edged products, particularly products in a tray or backer card, that may be prone to seal creep when paired with a Chevron design



Thumb Notch

Improves usability by creating an intuitive guide to end users to open a pouch at the center, resulting in the most effective and efficient aseptic presentation of the product

(NOTE: thumb notches will appear on both ends of a pouch unless a skip cut operation is performed)



Tear Notch or Tear Slit

Typical add-on for almost all weld-sealed pouches for ease of opening without the need to cut the pouch



Pouch or Tube on a Roll

Both of these options are cost effective solutions for customers with automated or semi-automated manufacturing processes



Perforated Pouch



Pocket Pouch

Eliminates sterile barrier challenges that may arise when trying to package an IFU or other labeling inside of a pouch



Print

Tyvek, paper, film, and foil substrates can all be printed with up to 8 colors

(NOTE: Color and print methods vary per manufacturing site, contact your Oliver sales representative for more detail.)

Oliver Stock Pouch Program

Are you looking for quick access to high quality pouches to support a product launch, cover low inventory, or complete testing and validation activities?



Ready-to-ship Stock Pouch Program

Oliver's Stock Pouch Program can help, with in-stock and ready-to-ship pouches comprised of Oliver coated 1073B DuPont Tyvek sealed to 48ga PET/2 mil LDPE film, compatible with various sterilization methods.

Contact your Oliver sales representative or go to oliverhcp.com for information for your specific region.



Die-Cut Lid Solutions

Oliver's portfolio of die-cut lids includes a broad range of materials and innovative, industry-leading capabilities to meet even the most rigorous healthcare requirements.

Combined with Oliver SealScience or Xhale adhesive coatings, these custom lids offer superior seal, peel, and porosity characteristics, and can be adhered to a variety of rigid tray substrates. Lids can be printed with up to eight colors.





Osurance

Oliver's exclusive Osurance zone coated lids feature adhesive application only where you need it, providing exceptional porosity, and eliminate the risk of adhesive contact with sensitive devices, such as implants.

The Oclean Difference

Lids and liners can be manufactured utilizing Oliver's Oclean process, resulting in an ultraclean solution converted in a certified ISO 7 cleanroom environment. These products are processed and tested to meet the specifications of IEST-STD-CC1246E for particulate level of cleanliness. This is a particularly good option for syringe and vial tubs.



Die-Cut Lid Solutions



Tyvek Lids

DuPont™ Tyvek® lids, compatible with a variety of tray substrates and sterilization modalities, provide outstanding resistance to microbial penetration.



Paper Lids

Medical grade paper lids are a cost-effective packaging solution for low profile devices that maintain product sterility right up until the moment of use.



Foil Lids

Foil lids meet your needs for medical device and pharmaceutical products that are sensitive to moisture, light, oxygen, or other gases.



Osurance Zone Coated Lids

With adhesive applied only where you need it, Osurance zone coated lids eliminate the risk of adhesive contact with sensitive devices, such as implants.

Lid Design Considerations

To prevent lid tearing or delamination:

- 1 Slightly oversize the lid or design the seal platen to leave an unsealed edge along the perimeter of the tray, preventing a complete seal-to-edge scenario.
- 2 Choose a peel tab based on the lid/tray configuration that will distribute the peel force over as wide an area as possible, such as a corner peel for a rectangle or a tear drop peel for round or curved trays.

Tyvek Lids*

Product ID	Description	Substrate Color	Sterilization				Application
			EtO	Radiation	Autoclave/ Steam	VHP	
03-0016	SealScience coated 1073B Tyvek	White	●	●			Universal adhesive for Lid applications Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
03-0009	Xhale coated 1073B Tyvek	White	●	●			General adhesive for Lid applications Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
03-0036	Xhale coated 1073B Tyvek	White	●	●			Lid adhesive with low seal initiation Seals to: PETG, PE, Barex, PVC, HIPS, and PS
03-0065 (bl)	Xhale coated 1073B Tyvek	White with blue adhesive tint	●	●			Lid adhesive with low seal initiation Seals to: PETG, PE, Barex, PVC, HIPS, and PS
03-0011	Xhale coated 1073B Tyvek	White	●	●			Lid adhesive with low seal initiation, particularly useful for large seal areas Seals to: PETG, PE, Barex, PVC, HIPS, PP, PS
03-0010 (bl)	Xhale coated 1073B Tyvek	White with blue adhesive tint	●	●			Lid adhesive with low seal initiation, particularly useful for large seal areas Seals to: PETG, PE, Barex, PVC, HIPS, PP, PS
03-0006	Xhale coated 1073B Tyvek	White	●	●	●	●	Lid adhesive compatible with various sterilization modes Seals to: PP
03-0007	Xhale coated 1073B Tyvek	White	●	●	●	●	Lid adhesive that offers higher temperature resistance and is compatible with various sterilization modes Seals to: PC
03-0008 (bl)	Xhale coated 1073B Tyvek	White with blue adhesive tint	●	●	●	●	Lid adhesive that offers higher temperature resistance and is compatible with various sterilization modes Seals to: PC
03-0031	Uncoated 1073B Tyvek	White	●	●	●	●	Typically used as a tray liner

(bl) = blue adhesive tint

*Also available with 1059B Tyvek substrate

Paper Lids

Product ID	Description	Substrate Color	Sterilization				Application
			EtO	Radiation	Autoclave/ Steam	VHP	
03-0026	SealScience coated 93gsm reinforced paper	White	●	●			General adhesive for Lid applications Seals to: PETG, PE, Barex, PVC, HIPS, PP
03-0027	Xhale coated 80gsm reinforced paper	White	●	●			Lid adhesive for low peel strength applications Seals to: PETG, PE, Barex, PVC, HIPS, PS
03-0024	Xhale coated 114gsm reinforced paper	White	●	●			Lid adhesive for higher peel strength applications Seals to: PETG, PE, Barex, PVC, HIPS, PS
03-0025 (bl)	Xhale coated 114gsm reinforced paper	White with blue adhesive tint	●	●			Lid adhesive for higher peel strength applications Seals to: PETG, PE, Barex, PVC, HIPS, PS

(bl) = blue adhesive tint

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Foil Lids

Product ID	Description	Substrate Color	Sterilization	Application	Barrier Properties
03-0037	100ga (25µm) foil with peelable sealant layer	Silver	Radiation	Peelable, puncture resistant barrier material structure for general Lidding applications Seals to: PETG, PE, Barex, PVC, HIPS, and PC	— Oxygen — Moisture — UV light
03-0052	SealScience coated 35ga (9µm) foil with 40# (70gsm) paper lamination	White	Radiation	Wide seal temperature range adhesive for Lidding, puncture resistant barrier material structure; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PC	— Oxygen — Moisture — UV light
03-0050	SealScience coated 100ga (25µm) foil with 26# (42gsm) C1S paper lamination	White	Radiation	Wide seal temperature range adhesive for Lidding, strong barrier material structure that offers excellent graphics transfer; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PC	— Oxygen — Moisture — UV light
03-0032	210ga (53µm) vinyl based WOPV foil with peelable sealant layer	White	Radiation	Wide seal temperature range adhesive combined with a film/foil barrier structure that provides water resistance Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PC	— Oxygen — Moisture — UV light — Water resistant
03-0033	210ga (53µm) nitro-cellulose based WOPV foil with peelable sealant layer	White	Radiation	Wide seal temperature range adhesive with added heat resistance combined with a film/foil barrier structure that provides water resistance Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PC	— Oxygen — Moisture — UV light — Water resistant

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Osurance Zone Coated Lids

Product ID	Description	Substrate Color	Sterilization					Application
			EtO	Radiation	Autoclave/ Steam	VHP	Dry Heat	
04-0017	SealScience coated 1073B Tyvek	White	●	●		●		Universal adhesive for Lid applications Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
04-0010	SealScience coated 1073B Tyvek	White	●	●		●		Adhesive with a low seal initiation and seal creep resistance Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
04-0023 (bl)	SealScience coated 1073B Tyvek	White with blue adhesive tint	●	●		●		Adhesive with a low seal initiation and seal creep resistance Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
04-0015	SealScience coated 1073B Tyvek	White	●		●		●	Lid adhesive compatible with steam and dry heat sterilization Seals to: PC
04-0016 (bl)	SealScience coated 1073B Tyvek	White with blue adhesive tint	●		●		●	Lid adhesive compatible with steam and dry heat sterilization Seals to: PC
04-0011	SealScience coated 1073B Tyvek	White	●				●	Compatible with high stress conditions Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PC
04-0013 (bl)	SealScience coated 1073B Tyvek	White with blue adhesive tint	●		●		●	Lid adhesive compatible with steam and dry heat sterilization Seals to: PP and PC
04-0009	Xhale coated 1073B Tyvek	White	●	●				Universal adhesive for Lid applications Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
04-0007	Xhale coated 1073B Tyvek	White	●	●	●			Lid adhesive that offers higher temperature resistance and is compatible with various sterilization modes Seals to: PC
04-0008 (bl)	Xhale coated 1073B Tyvek	White with blue adhesive tint	●	●	●			Lid adhesive that offers higher temperature resistance and is compatible with various sterilization modes Seals to: PC
04-0006	Xhale coated 1073B Tyvek	White	●	●	●			Lid adhesive compatible with various sterilization modes Seals to: PP

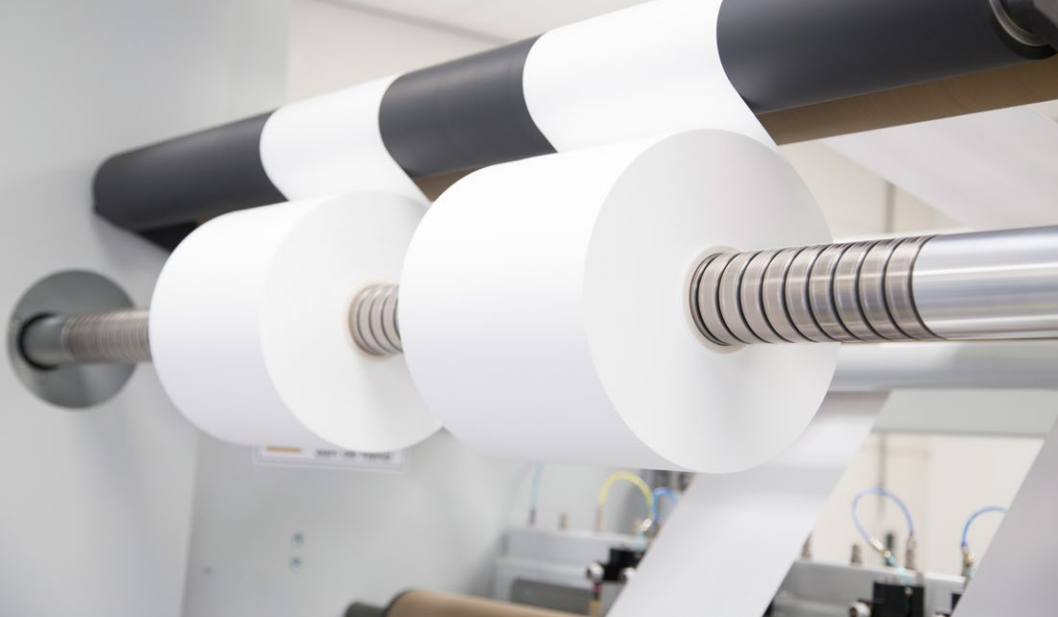
(bl) = blue adhesive tint

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Rollstock and Forming Film Solutions

Oliver's extensive portfolio of materials can be offered in Rollstock form, slit to custom widths, for your semi-automated or automated operational needs. Our Forming Film product offering includes multi-layer film structures that seal to a variety of top web substrates for a complete TFFS packaging solution.





Tyvek Rollstock



Medical Grade Paper Rollstock



Foil and Film Rollstock



Forming Films

Tyvek Rollstock*

Product ID	Description	Substrate Color	Sterilization				Application
			EtO	Radiation	Autoclave/ Steam	VHP	
01-0017	SealScience coated 1073B Tyvek	White	●	●		●	Universal adhesive for Pouch, Lid, and TFFS applications Seals to: Flexible Trays, Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS
01-0022	Xhale coated 1073B Tyvek	White	●	●			Lid and TFFS adhesive with low seal initiation; seals to most tray substrates Seals to: Flexible Trays, PETG, PE, Barex, PVC, HIPS, and PS
01-0006	Xhale coated 1073B Tyvek	White	●	●	●	●	Lid adhesive compatible with various sterilization modes Seals to: PP
01-0008	Xhale coated 1073B Tyvek	White	●	●	●	●	Lid adhesive that offers higher temperature resistance and is compatible with various sterilization modes Seals to: PC
01-0012	Xhale coated 1073B Tyvek	White	●	●			Universal adhesive for Lid and TFFS applications; seals to most tray substrates Seals to: Silicone PETG, PETG, PE, Barex, PVC, HIPS, PP, and PS

*Some options also available with 1059B or 2FS Tyvek substrate

Medical Grade Paper Rollstock

Product ID	Description	Substrate Color	Sterilization				Application
			EtO	Radiation	Autoclave/ Steam	VHP	
01-0036	SealScience coated 85gsm reinforced paper	White	●	●			Lid and TFFS adhesive Seals to: Flexible Trays, PETG, PE, Barex, PVC, HIPS, PP, PC, and PS
01-0035	SealScience coated 112gsm reinforced paper	White	●	●			Lid and TFFS adhesive combined with a higher weight reinforced paper for added puncture resistance Seals to: Flexible Trays, PETG, PE, Barex, PVC, HIPS, PP, PC, and PS
01-0040	Xhale coated 60gsm non-reinforced paper	White	●	●			Lid and TFFS adhesive with high peel strength Seals to: Flexible Trays, PETG, PE, Barex, PVC, HIPS, and PS
01-0038	Xhale coated 80gsm reinforced paper	White	●	●			Lid and TFFS adhesive with low peel strength Seals to: Flexible Trays, PETG, PE, Barex, PVC, HIPS, and PS

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

Foil and Film Rollstock

Product ID	Description	Substrate Color	Sterilization	Application
01-0044	SealScience coated 35ga (9µm) foil with 40# (70gsm) paper lamination	White	Radiation	Wide seal temperature range adhesive for Lidding, puncture resistant barrier material structure; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PS
01-0043	SealScience coated 100ga (25µm) foil with 26# (42gsm) C1S paper lamination	White	Radiation	Wide seal temperature range adhesive for Lidding, strong barrier material structure that offers excellent graphics transfer; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PS
01-0042	SealScience coated 100ga (25µm) foil with PET lamination	Silver	Radiation	Lid and Pouch adhesive application combined with a strong barrier material structure that offers puncture and high altitude creep resistance; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, PP, and PS
01-0041	SealScience coated 3.5mil (89µm) coextruded PE film	White	Radiation	Lid and Pouch adhesive combined with an opaque-like film for enhanced printability; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, and PP
01-0140	SealScience coated 48ga (12µm) PET lamination	Clear	Radiation	Chemically treated film for Lid and Pouch applications with clean, peelable bonds and visual seal indication; not recommended for wet or moist products Seals to: PETG, PE, Barex, PVC, HIPS, and PS

Forming Films

Product ID	Description	Substrate Color	Sterilization		Application
			EtO	Radiation	
05-0006	4 mil (100 µm) EVA/Ionomer/EVA film	Clear	●	●	Moderate draw FFS film Seals to: most lid substrates
05-0007	6 mil (150 µm) EVA/Ionomer/EVA film	Clear	●	●	Moderate draw FFS film Seals to: most lid substrates
05-0008	8 mil (200 µm) EVA/Ionomer/EVA film	Clear	●	●	Deep draw FFS film Seals to: most lid substrates
05-0009	10 mil (250 µm) EVA/Ionomer/EVA film	Clear	●	●	Deep draw FFS film Seals to: most lid substrates
05-0014	3 mil (75 µm) coextruded Nylon film	Clear	●	●	Moderate draw FFS film with excellent abrasion and puncture resistance, and compatible with high speed applications Seals to: most lid substrates
05-0015	5 mil (125 µm) coextruded Nylon film	Clear	●	●	Deep draw FFS film with excellent abrasion and puncture resistance, and compatible with high speed applications Seals to: most lid substrates
05-0016	7 mil (175 µm) coextruded Nylon film	Clear	●	●	Deep draw FFS film with excellent abrasion and puncture resistance, and compatible with high speed applications Seals to: most lid substrates

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

CleanCut Card Solutions

Oliver's CleanCut Cards are a completely customizable, cost-effective alternative to trays, providing a packaging solution that will secure and protect a variety of devices within a sterile environment across healthcare market segments.





Why CleanCut Cards?

- Customized designs and configurations that accommodate small components, complex device kits, pharmaceutical products, and long catheters alike
- Unmatched design expertise, coupled with quick prototyping and design iterations, gives you more confidence in passing testing quickly
- Virgin HDPE material is recyclable
- Pad and screen print capabilities
- Decreased overall tooling cost
- CleanCut Cards ship flat, leading to lower storage and shipping costs, and a reduced packaging footprint
- Manufactured in an ISO 8 cleanroom, packed for shipment in an ISO 7 cleanroom

CleanCut Cards

Product ID	Material	Substrate Color	Thickness (mil/micron)	Sterilization		
				EtO	Radiation	Autoclave/Steam
09-0014	HDPE	White	14 / 356	●	●	
09-0015	HDPE	White	23 / 584	●	●	
09-0016	HDPE	White	28 / 711	●	●	
09-0017	HDPE	White	35 / 889	●	●	
09-0022	HDPE	Natural	14 / 356	●	●	
09-0018	HDPE	Natural	23 / 584	●	●	
09-0019	HDPE	Natural	28 / 711	●	●	
09-0020	HDPE	Natural	35 / 889	●	●	
09-0007	HDPE	White	15 / 381	●	●	
09-0008	HDPE	White	20 / 508	●	●	
09-0009	HDPE	White	25 / 635	●	●	
09-0013	PSP (polysynthetic paper)	White	6 / 152	●		
09-0028	PSP (polysynthetic paper)	White	10 / 254	●		
09-0027	PP	Natural	31 / 787	●		●

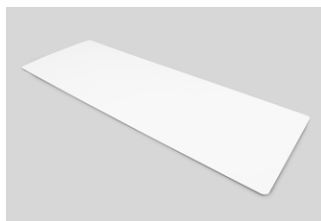
Don't forget the Pouch! Oliver's Sales and Technical experts can support your complete CleanCut Card packaging solution, including the Pouch, Shelf Carton, and Shipper needs.



NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information.

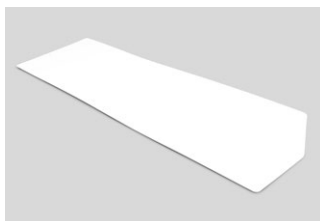
Common Designs and Features

While the below list contains the most common designs used for CleanCut Cards, it is by no means all-inclusive. Our experienced team of design engineers can help you design a unique solution.



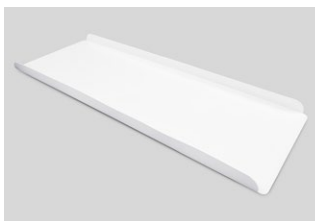
Basic Card

For small, flat devices with very little raised profile or features; available in square, rectangular, or circular shape



Chevron Card

A chevron shape helps limit movement of a card within a pouch with a chevron seal



Rails

Provides card and device protection by adding strength and rigidity



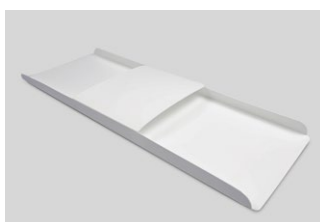
Pop n' Lock

Reinforced rail for heavier or longer devices that also helps facilitate aseptic transfer



Cover or Flap

A cover provides device protection while a flap protects the pouch film from sharp points on a device, helping to maintain the sterile barrier



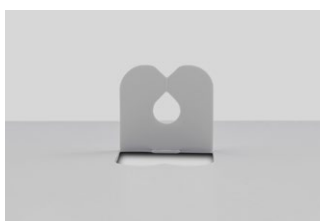
Strap (Added or Integrated)

Holds a device securely in place with a locking mechanism that can be easily released by pulling a tab; can be designed as a separate component or cut from the card itself



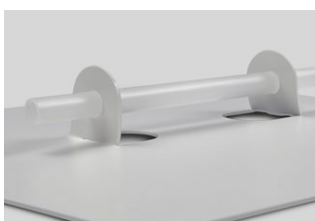
Keyhole Pop-up

A retention element with a throat opening that helps a device snap into place, and be easily removed by the end user



Slit-type Pop-up

Teardrop shape offers superior device retention and easy removal for small diameter devices and slippery devices such as metal or plastic



Through-hole Pop-up and U Channel

A pass through design that provides a snug fit, typically used for tubing; combined with two through-hole pop-ups, the U Channel holds down tubing while making it easier to load or remove the tubing



Curly Q

A simple hold down feature, typically used for round devices



Finger

Holds delicate or thin devices using very little pressure; can be arranged in single or multiple configurations



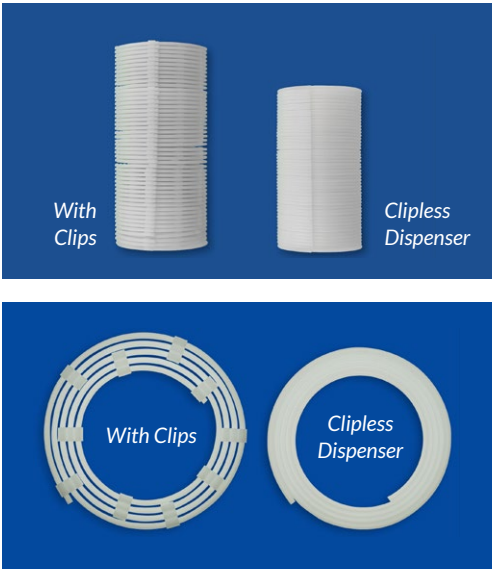
Shark's Teeth

Wider version of a Finger, which applies more pressure for holding larger devices

HDPE Clipless Dispensers, offered in various sizes and lengths, are a guidewire and catheter dispenser solution optimized for device retention and ease of use during surgical procedures.



How do they stack up against clips?



Securely held together by a thermal bonding process, the elimination of clips means a significant cost saving to the manufacturer (20-30%) through material, weight, space, and waste reduction. This solution also saves time for medical professionals while eliminating the risk of clips falling in or near the surgical site or puncturing sterile pouches. Straight HDPE Tubing is also offered as a custom solution for protecting and securing devices.

Tubing

Product ID	Interior Dimension	Outside Dimension	Sterilization	
			EtO	Radiation
06-0010	0.100 in / 2.54 mm	0.152 in / 3.86 mm	●	●
06-0011	0.175 in / 4.45 mm	0.225 in / 5.72 mm	●	●
06-0012	0.188 in / 4.78 mm	0.250 in / 6.35 mm	●	●
06-0013	0.200 in / 5.08 mm	0.250 in / 6.35 mm	●	●
06-0014	0.225 in / 5.72 mm	0.275 in / 6.99 mm	●	●
06-0015	0.278 in / 7.06 mm	0.340 in / 10.20 mm	●	●
06-0016	0.400 in / 10.20 mm	0.450 in / 11.43 mm	●	●
06-0017	0.500 in / 12.70 mm	0.550 in / 13.90 mm	●	●
06-0018	0.700 in / 17.80 mm	0.750 in / 19.05 mm	●	●
06-0022	0.275 in / 6.99 mm	0.338 in / 8.59 mm	●	●
06-0024	0.160 in / 4.06 mm	0.200 in / 5.08 mm	●	●

Clipless Dispensers

Product ID	Dimensions	Sterilization	
		EtO	Radiation
06-0008	Various sizes	●	●

For an “all-in-one” packaging system, the HDPE Tubing can be welded to an HDPE CleanCut Card, creating the DISK.



This efficient system provides a solution for retaining catheters or guidewires together with procedurally related components, further reducing cost, shelf space, and set up time. The DISK can be customized in shape and size to your unique device.

DISKs

Product ID	Dimensions	Sterilization	
		EtO	Radiation
06-0019	Various tubing sizes with 23mil (584 micron) Card	●	●
06-0009	Various tubing sizes with 28mil (711 micron) Card	●	●
06-0020	Various tubing sizes with 35mil (889 micron) Card	●	●

Shelf Cartons & Shippers

For a total end-to-end packaging solution, Oliver offers precisely designed shelf cartons and corrugated shippers for optimal device protection; ideal for quick-turn, low volume projects.

Products include SBS, single wall corrugate, and double wall corrugate and can be ordered plain or with custom print (offset print for SBS cartons, and direct or litholam print for corrugated shippers). We specialize in “hard to find” cartons ranging in size from 4" (101.6mm) up to 82" (2,083mm) for long devices.



Shelf Cartons

Product ID	Material
07-0006	SBS, 18pt (0.46 mm)
07-0015	SBS, 20pt (0.51 mm)
07-0005	SBS, 24pt (0.61 mm)
07-0007	SBS, 28pt (0.71 mm)
07-0008	E Flute, 200# Single Wall (white)
07-0012	E Flute Kemi

Shippers

Product ID	Material
07-0009	C Flute, 275# Single Wall
07-0010	B/C Flute, 275# Double Wall
07-0014	Plasticor (polypropylene), 2mil (white)

NOTE: Additional materials are available for more unique customer applications. Please reach out to your Oliver sales representative for more information

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