

# PHARMAPACK

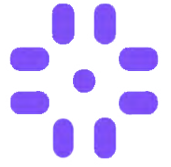
By CPHI



#PharmapackEU

# PHARMAPACK

By CPHI



## Welcome to the 2024 edition of the Pharmapack Europe Innovation Gallery eBook!

One of the most exciting elements of the Pharmapack Europe event is the opportunity to see the latest in products, solutions and technologies from our exhibitors and partners – many of which are launched on the show floor.

2024 is no exception, and we are delighted to offer a preview of market-leading innovations in this year's eBook.

I hope this provides an interesting prelude to the event, and that once you arrive in Paris, you'll add our Innovation Gallery to your schedule – where you can see more information on the products listed here.

Don't forget, each innovation is also entered into the prestigious Pharmapack Awards, and we'll be handing out trophies at our awards ceremony on the first day of the show – 24<sup>th</sup> January.

I hope you enjoy browsing through the latest innovations in the world of drug delivery and packaging, and very much hope to see you in Paris.



Tara Dougal, Content Director – Pharma, Informa Markets

### PHARMAPACK EUROPE INNOVATION eBook

Do you want to be part of next year's Innovation eBook? You can get in contact with [daria.philipchenko@informa.com](mailto:daria.philipchenko@informa.com)

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**Company name:** West Pharmaceutical & Corning Inc.

**Country:** USA

**Product name:** Corning® Viridian™ Vials

**Product type:** Type I Borosilicate Glass Vials

**Date of launch:** 13/07/23

**Current development phase:** Commercialization

**Target markets:** Global

**Target clients:** Pharmaceutical companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

Corning® Viridian™ Vials are Type I borosilicate glass vials that use 20% less overall glass than conventional borosilicate vials thereby reducing vial manufacturing emissions by up to 30% while enabling increased filling line productivity by up to 50% and safer fill-finish operations via Corning's innovative coating technology. Viridian™ Vials conform to ISO standard external dimensions which allows them to be a drop-in solution to customers' existing fill-finish operations with no significant changes to fill-finish lines that are already using Type I ISO standard borosilicate glass vials.

## APPLICATION AREAS

Viridian™ Vials can be use wherever Type I borosilicate glass vials are used to package pharmaceutical products.

## KEY FEATURES

Corning® Viridian™ Vials are Type I borosilicate glass vials that use 20% less overall glass, reducing vial manufacturing emissions by up to 30%. Due to their proprietary coating, they enable increased filling line productivity by up to 50% and help reduce glass particles in filling lines by up to 96%



**Website:** <https://www.corning.com/worldwide/en/products/pharmaceutical-technologies/viridian.html>



**Company name:** Phillips-Medisize

**Country:** Denmark

**Product name:** Envoi

**Product type:** Disposable pen injector

**Date of launch:** 2024

**Current development phase:** Proof of concept

**Target markets:** US, EU, Global

**Target clients:** Biopharmaceutical companies

**Business model:** Injection Pen Platform

**FACT SHEET**

## PRODUCT DESCRIPTION

A familiar injection pen at an affordable price:

The Pen Injector is an important addition to Phillips-Medisize's expanding Product and Platform portfolio, empowering Biopharma companies to accelerate the rollout of novel and generic drug treatments at significant economies of scale. This 'ready-to-go' solution offers all of the advantages expected from 'state-of-the-art' pen designs, while benefiting from our decades of device development and large-volume manufacturing expertise to reduce the challenges of bringing affordable drugs and drug-delivery devices to market

## APPLICATION AREAS

The disposable pen injector can be applied for most therapies, such as:

- Diabetes care
- Growth Hormon
- Osteoporosis
- Fertility
- Other therapies

## KEY FEATURES

- Flexible design for different dosing needs
- Combines a compact form factor and the option of up to 80 IU in one injection (length appr 150-153mm)
- Limited elongation (appr 32-34 mm) by max dosing supports administration with small hands
- With confidence of supply from a trusted high-volume manufacturer



Website: <https://www.phillipsmedisize.com/>

# Flawa IQ – Intelligent First Aid System

2024



**Company name:** Graphic Packaging International

**Country:** Belgium

**Product name:** Flawa IQ – Intelligent First Aid System

**Product type:** Secondary Packaging

**Date of launch:** 02/01/23

**Current development phase:** Commercialization

**Target markets:** Europe

**Target clients:** Pharmaceutical companies

**Business model:** Direct

FACT SHEET

## PRODUCT DESCRIPTION

The Flawa iQ is the world's first digital emergency case. It employs a special fibre-based packaging solution, developed at Graphic Packaging's Swiss site, within the outer case to hold first aid supplies. As soon as one of these packs is removed from the digitally connected case, it triggers an order for the refill module. This eliminates the risk of running out of potentially life-saving supplies, ensuring the emergency case is always fully filled to guarantee the highest level of safety.

## APPLICATION AREAS

Emergency kits are used in various public locations everywhere around the world – at school, at work, at sport facilities and more. The need for it is obvious, but in case of an emergency, the first person at the accident needs to trust, that the emergency kit is properly equipped to have the right tools at hand.

## KEY FEATURES

- **SIMPLIFIED ACCESSABILITY OF FIRST AID PRODUCTS:** All products in the emergency case are individually packed in sustainable, fibre-based folding boxes. These are placed into the case to enable easy access and to offer an at-a-glance view of the kit's contents.
- **AUTOMATED REFILL ORDER FOR EASE-OF-USE AND PATIENT SAFETY:** Every folding box is equipped with an RFID label at the bottom – once a box is removed and not put back into the case, a refill module is ordered automatically. This saves time and improves user-friendliness and patient safety.
- **TAILORED STRUCTURAL DESIGN TO ENSURE FUNCTIONALITY:** Due to the special conical design of the refill packs, they can only be inserted into the case in the correct way, ensuring the integrated RFID label can always be recognized.
- **USER FRIENDLY STRUCTURAL & GRAPHIC DESIGN:** Additionally, the removal of individual products from the packaging modules is facilitated by a clearly marked perforation which simplifies the product access. The graphic design on each packaging module clearly communicates what is inside via high-contrast illustrations and text. The fibre-based packs enable full HD printing providing crisp, clear end results.



Website: <https://www.flawa-iq.ch/en/flawa-iq-intelligent-first-aid-system/>





**Company name:** Edelmann Group

**Country:** Germany

**Product name:** gigasept powerTrio

**Product type:** Ready-to-use wipes for manual reprocessing of non-lumened medical devices

**Date of launch:** 02/11/23

**Current development phase:** Commercialization

**Target markets:** Europe / Global

**Target clients:** Pharmaceutical companies

**Business model:** Folding Box Supplier

**FACT SHEET**

## PRODUCT DESCRIPTION

The overall concept of the application set for disinfection products "gigasept powerTrio" is characterized by intuitive handling as well as the holistic and user-friendly provision of all necessary components in the set. The user is guided very well through the respective application steps via the graphical visualizations on the front of the package. The design directly solves the required securing of the individual components. The documentation booklet is always readily available.

In medical device reprocessing, disinfection products must always be used correctly. Patient safety is otherwise at risk. The new packaging increases process reliability, compliance and usability. It guarantees a three-stage treatment process in the correct order, so that components cannot be replaced. In addition, there is an antimicrobial varnish and high cardboard quality.

## APPLICATION AREAS

Ready-to-use wipes for manual reprocessing of non-lumened medical devices.

## KEY FEATURES

The packaging-system guarantees easy handling, maximum user and patient safety for medical-device-reprocessing in professional healthcare. There is no comparable system on the market that guarantees easy handling and safe application. The challenges lay in the safe storage of the individual components, and the overall-size of the packaging for a space-saving-solution. User and patient safety is ensured by anchoring the components in the setbox. A special construction guarantees a secure fixation of the cans. The can-holders ensure that cans can only be removed under great force, which excludes the risk of mix-up. The sachets are secured by a cardboard cuff with perforation (tamper-evident-closure). The color and numerical design supports the order of application of the cloths to guarantee a correct process sequence and thus ensure compliance. Double walls (no cut-edges), tear-resistant-material and antimicrobial Lock3Lacks prevent contamination by cardboard particles or adhering germs in the sensitive patient environment and guarantee application safety.

The "gigasept powerTRIO" has already been awarded the German Packaging Prize and the WPO Worldstar for its outstanding concept.



**Website:** <https://www.schuelke.com/intl-en/products/gigasept-powerTRIO.php>



**Company name:** CORADIN

**Country:** France

**Product name:** GREENIS® Range

**Product type:** Dispenser

**Date of launch:** 03/07/23

**Current development phase:** Commercialization

**Target markets:** Europe, MEA, NA, SA, Asia Pacific

**Target clients:** Pharmaceutical companies

**Business model:** Dispenser packaging solutions for fluid type cares or treatments

**FACT SHEET**

## PRODUCT DESCRIPTION

The GREENIS® Range of dispensers has been developed to improve the customer experience with focus on the ergonomics and intuitive application, adding the following sustainability credentials during development.

1. Reducing materials: GREENIS® Dispenser targeted weight reduction versus the previous pack used by the Brand DERM-ALOGICA moving from 17.94 g to 14.6 g, meaning an 18.6% reduction of plastic! Overall target was to develop light innovative packages. GREENIS® Refill is the same base using a screw bottom cap instead of a snap-in bottom cap allowing to refill the package easily from the back.
2. Substituting materials: succeeded in the creation of a mono-material component by eliminating a resin simplifying the recyclability with the full PP pack. The TPE button (for GREENIS® Dispenser and GREENIS® Refill), which is compatible with the PP recycling stream, is at a level approved for recycling certification.
3. Using recycled materials: one of the great achievements with this range was to maintain aesthetics and the white colour while manufacturing the body with PCR (mechanical recycling polypropylene PCR)
4. Recyclability: we succeeded in designing and manufacturing a full PP Dispenser with a TPE button less than 3% in weight and making it compatible with the PP recycling stream. This has been approved with a certificate by Cyclos (German Institute) provided by the German manufacturer Kraiburg. The GREENIS® Refill Ampoule is 100% mono-material, the master being made of PP and the ampoule manufactured in LDPE.

## APPLICATION AREAS

- Fluid type skin cares or treatments, such as serums treating acne or dark spots, sun protective cares...
- Topical applications
- Dermatological cares
- Eye drops



**Website:** <https://www.coradin.com/products/dispensing-systems/?lang=en>



## KEY FEATURES

### Eco-conception (Eco-design)

- This range of packages reduces the amount of virgin plastic produced, by utilizing post-consumer recycled plastic (PCR) whenever possible for the Brands.
- The packages' design has eliminated, avoided, or reduced unnecessary materials.
- These packages are designed for better circularity and environmental performance (light weight).

### Consumer Experience

- The push button was designed on the side to improve the ergonomics of the application and increase accuracy.
  1. Increase intuitive design.
  2. Precise dosing (pressure control between 2 fingers like a pen)
  3. Reduce consumer use damage (more robust button and intuitive gesture)

### Innovation

- The packages demonstrate an application of a "new idea."
- Traditionally precise dosing droppers are heavy weight glass or are multi-material. These new droppers' innovation combines sustainability with ease of use in an e-commerce friendly component.
- The packages make use of new design, material, or technique.
- The design eliminates the need for multi materials and reduces the number of parts needed.
- The packages reflect important new marketing strategies.
- Incorporating a new, exciting packaging technology in sustainability allows for a differentiation.

### Manufacturing/Supply Chain

- This range of packages does not need to be run on new capping machinery, resulting in filling costs staying the same.
- Minimizing the weight of the packages decreases the cost of shipment during e-commerce.

# Gx Elite RTF Syringes for Ophthalmics

# 2024

## Gx® Elite Syringes



**Company name:** Gerresheimer

**Country:** Germany

**Product name:** Gx Elite RTF Syringes for Ophthalmics

**Product type:** Prefillable Syringe

**Date of launch:** 01/2024

**Current development phase:** Commercialization

**Target markets:** Global, Ophthalmics

**Target clients:** Biopharmaceutical companies

**Business model:** System supplier

**FACT SHEET**

## PRODUCT DESCRIPTION

High-end solutions for ophthalmic drugs: silicone-free syringe systems. Ready-to-fill syringes made of glass and COP for new and sophisticated therapeutic drug technologies in the area of Ophthalmics such as RNAi or AAV-based gene therapies. Due to the sensitive nature of those molecules, silicone oil can be an issue. To minimise risks related to this and support those new approaches along their journey to market approval, our ophthalmic syringe systems are available as complete silicone-free option, excluding silicon oil within all used components.

Our syringe systems can be configured with two stopper variants (PFAS-free option available) ensuring excellent container closure integrity, also during deep-cold storage, as well as superb break-loose and gliding forces over shelf-life. Comprehensive testing data in regards to performance and functionality available.

## APPLICATION AREAS

- Protein-based drug products used in the area of Ophthalmology
- Gene therapies (e. g. AAV-based) in the area of Ophthalmology

## KEY FEATURES

- Metal, tungsten and silicone oil free system
- 0.5 ml and 1.0 ml long configuration
- Closures, stopper and syringe barrel entirely free of silicone oil
- Lowest particle load outperforming requirements of USP <789>
- Lowest dead volume ensuring exact dosing also at low volumes
- Proven break-loose and gliding forces
- Highest quality standards in regards to dimensions and cosmetics
- Suitable for deep-cold storage down to -80°C
- Chemical and functional data packages to support registration
- PFAS-free stopper variant available



Website: <https://www.gerresheimer.com/en/primary-packaging/prefillable-syringes>

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Visit our [Website](https://www.gerresheimer.com/en/primary-packaging/prefillable-syringes)

**9**



**Company name:** Colorcon

**Country:** USA

**Product name:** HAT®-B Handy Active Tube

**Product type:** Desiccant Plastic Vial

**Date of launch:** 02/12/24

**Current development phase:** Prototype

**Target markets:** Global

**Target clients:** Pharmaceutical companies

**Business model:** Direct Sales

**FACT SHEET**

## PRODUCT DESCRIPTION

HAT®-B Handy Active Tube is a groundbreaking addition to Colorcon's HAT® product range, revolutionizing moisture protective packaging for diagnostics, pharmaceuticals, and nutraceuticals. This innovative packaging solution reduces plastic waste while offering versatility in sorbent material options to meet a range of stability requirements for moisture protection.

As the industry need for more sustainable packaging grows, HAT-B has been redesigned to reduce the amount of plastic usage. This environmentally conscious approach not only benefits the planet but also resonates with end consumers who prioritize eco-friendly choices. The packaging incorporates an adjustable sorbent system, allowing healthcare product manufacturers to customize the quantity of sorbent material based on the specific needs for their products. The sorbent adaptability ensures that the product remains in optimal condition, which is especially essential for moisture sensitive products such as probiotics and pharmaceuticals.

The ergonomic design of the HAT-B container is engineered to meet the demands of the diagnostic, pharmaceutical, and nutraceuticals markets.

- The flip-top cap offers ease of access, while maintaining an airtight seal to safeguard product integrity.
- Strategic placement of the desiccant at the base of the tube, ensures it remains closest to the reactive components of test strips.

Placement of the desiccant at the bottom of the tube provides optimal in-use efficiency, a crucial factor for product stability and accuracy of diagnostic strips. The HAT-B container is available in two configurations to meet different needs: a smaller version with dimensions of 30 x 53 mm and a taller one measuring 30 x 107 mm. Both configurations can be equipped with various sorbent materials, ranging from 0 to 4 grams. These options provide manufacturers and researchers with the flexibility to choose the ideal sorbent materials to suit their specific stability requirements. Whether you are working with diagnostics, pharmaceuticals, or nutraceuticals, HAT-B can be tailored to effectively meet your needs.

Setting a new industry standard, HAT-B represents a significant step forward in sustainable and versatile packaging for healthcare industries. Combining a reduction in plastic use with its adaptable sorbent system and efficient design, HAT-B offers a smart solution for those seeking to enhance the sustainability and performance of their products.



**Website:** <https://www.colorcon-fp.com/products/vials-with-integrated-desiccant/>

## APPLICATION AREAS

HAT®-B Handy Active Tube is a highly versatile packaging solution designed to protect a wide array of moisture sensitive products. Key application areas include:

- Diagnostic strips
- Dietary supplements; especially probiotics
- Moisture sensitive medicines
- Inhalation devices

One of its primary applications is the preservation of test strips, crucial for maintaining their integrity and accuracy. HAT-B excels in its ability to adapt the type and quantity of sorbent materials, ensuring that optimal packaging conditions are maintained throughout the entire shelf life. This adaptability is vital to maintain the precision required in diagnostic testing. For the nutraceutical industry, where dietary supplements and probiotics often require specialized packaging to shield their active ingredients from moisture induced degradation, HAT-B's protective concept is a perfect match to maintain product efficacy.

In the pharmaceutical sector, HAT-B offers an advanced alternative to traditional tube and stopper packaging. Its adaptability enables customization based on specific product and customer requirements. This flexibility is valuable for safeguarding sensitive pharmaceutical compounds and providing secure storage for various medications. HAT-B extends its protective capabilities to small medical devices, such as inhalation unit doses. These devices, critical for delivering precise medication doses, are highly susceptible to moisture induced spoilage, which can compromise their functionality and effectiveness. HAT-B offers a tailored solution for protecting these devices by strategically placing desiccants within the packaging. This ensures that excess moisture is absorbed, preventing clogging or degradation, and each unit dose is delivered as intended.

The adaptability of HAT-B, particularly in sorbent material selection and quantity, enables it to cater to the unique requirements of different industries and products. Whether it's ensuring the accuracy of diagnostic tests, preserving nutraceuticals from moisture-induced degradation, providing innovative pharmaceutical packaging, or safeguarding small medical devices, HAT-B proves to be a versatile and efficient choice. Its ability to maintain the quality and effectiveness of moisture sensitive products make it an invaluable asset across healthcare markets, contributing to product integrity and consumer satisfaction.

## KEY FEATURES

HAT®-B Handy Active Tube is a flexible and innovative packaging solution designed to effectively control moisture vapor transmission (MVTR), with a focus on diagnostic applications where precision of use is critical. The desiccant in HAT-B is strategically located at the bottom of the tube so it is closest to the test strips reactive region. This proximity ensures it can absorb headspace and external moisture during the product shelf life, maintaining diagnostic accuracy and integrity. HAT-B provides a sustainable solution through plastic weight reduction and minimized packaging materials, thus decreasing waste and offering consumers a more eco-friendly choice.

The practical design of the HAT-B vial enhances consumer appeal. With an easy-grip design and simple open-close function, it's a convenient choice for users across various applications. Efficient moisture control and extended shelf life benefits consumers while ensuring product quality and reliability.

- Easy grip design
- Simple open-close
- Reduced plastic use
- Versatile sorbent options

Through innovative design HAT-B is compatible with automated filling lines across the healthcare industries to ensure streamlined production. With ease of handling and reduced plastic weight HAT-B aligns well with environmental and consumer desires. Customizable sorbent options and adjustable desiccant quantities make HAT-B versatile and sustainable, tailored to specific product and industry needs.

HAT-B is a great example of innovative packaging's positive impact on product quality, shelf life, and the environment, all while meeting the demands of the healthcare industries.



**Company name:** Althena Medical

**Country:** Italy

**Product name:** Helidose

**Product type:** -

**Date of launch:** 03/06/24

**Current development phase:** Prototype

**Target markets:** NA, Europe, Middle East

**Target clients:** Biopharmaceutcial companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

Helidose is a pre-filled multi-dose syringe for liquids and semi-liquids. It's a particular dosing system because it can memorize the dose to be administered. Helidose is a useful device, especially when you need to administer always the same dose because; it allows a fast and error-free administration of the dose. Helisose is suitable for the administration of both drugs and oral liquids.

## APPLICATION AREAS

Helidose has applications in many fields. Just to name a few:

- Administration of food supplements
- Administration of cannabinoids
- Administration of oral medication
- Administration of products (drugs, food supplements, etc.) for animals
- Lotions
- Products for the scalp

## KEY FEATURES

Helidose has a patented system that allows you to set and then mechanically memorize the dose of liquid you need to administer. It has a helical scale in relief printing on the external surface of the plunger. Each step of the helical scale represents a volume to be administered. A ring allows you to set the dose and therefore the volume of liquid to be administered. Helidose is a perfect substitute for traditional dosing systems (droppers, glass ampoules, pipettes, vials).



Website: <https://www.althenamedical.it/en/products/>



**Company name:** Terumo

**Country:** Belgium

**Product name:** Injection Filter Needle

**Product type:** Hypodermic needle with extended application

**Date of launch:** 31/01/24

**Current development phase:** Commercialization

**Target markets:** Global

**Target clients:** Pharmaceutical companies

**Business model:** B2B

**FACT SHEET**

## PRODUCT DESCRIPTION

Hypodermic needle for the injection of parenteral medication injection of fluids into parts of the body below the surface of the skin and into the vitreous.

## APPLICATION AREAS

The device is indicated for general application - for treatment - injection of fluids into parts of the body below the surface of the skin and into the vitreous.

## KEY FEATURES

- Built-in filter of 5µm mesh size to retain particulate matters of extrinsic and / or intrinsic origin present in the fluid path
- 30G extra-thin-wall cannula 13mm
- Packed in a primary packaging allowing aseptic presentation, for example for use in acute care facilities



Website: <https://www.terumopharmaceuticalsolutions.com>





**Company name:** EVEON

**Country:** France

**Product name:** Intuity® Ject

**Product type:** Custom medical device

**Date of launch:** 01/01/25

**Current development phase:** Prototype

**Target markets:** NA, Europe

**Target clients:** Biopharmaceutical companies

**Business model:** Custom Medical Device

**FACT SHEET**

## PRODUCT DESCRIPTION

Intuity® Ject is an all-in-one platform which provides automated preparation and delivery of complex drugs such as lyophilised and powdered formulations, highly viscous materials, multi-component preparations, suspensions of micro and nanoparticles... According to your needs, EVEON offers a custom solution with unique benefits:

- Adapted to industry standard primary containers, including vials, cartridges and syringes
- Thin needle to minimize pain
- Accurate dosage and controlled injection
- Controlled flow rate
- Zero force activation
- Time saving for healthcare professionals and/or patients
- Better compliance with data tracking, notification.

## APPLICATION AREAS

- Professional care
- Emergency
- Homecare

## KEY FEATURES

- Quick preparation and injection
- A miniaturized device combining at least cartridges, driving system, electronic system, micropump and fluidic path
- Needle injection and retraction system
- Easy-to-use and intuitive
- Reliable
- Maintain internal sterility
- Custom according to the challenges and needs



Website: [www.eveon.eu](http://www.eveon.eu)

**Company name:** Klöckner Pentaplast**Country:** Germany**Product name:** kpNext® RB2**Product type:** -**Date of launch:** 05/06/24**Current development phase:** Prototype**Target markets:** North America, Europe**Target clients:** Pharmaceutical companies**Business model:** -

FACT SHEET

## PRODUCT DESCRIPTION

kpNext® RB2, is a pioneering advancement in sustainable, recyclable pharmaceutical blister films. Crafted from polyethylene, it combines functionality with eco-consciousness. Engineered as a greener alternative, it ensures medication safety while minimising environmental impacts. Polyethylene's recyclability reduces plastic waste and conserves resources. This innovation addresses the pressing need for eco-friendly packaging within the pharmaceutical industry, reducing the carbon footprint and promoting a circular economy. As a testament to responsible production, this film aligns the healthcare sector with sustainability goals, fostering a healthier planet for generations to come.

## APPLICATION AREAS

kpNext® RB2 has several areas of application. Whether Over-the-counter (OTC), Ethicals, Generics, Nutraceuticals, or even Veterinary medicine. This innovation can be the solution for various areas of pharmaceutical packaging.

## KEY FEATURES

kpNext® RB2 basically fulfills all the requirements a pharmaceutical packaging film needs plus the unique feature of being sustainable. It is a perfect alternative to traditional barrier blister films, unlocking the value of sustainability and offers a high moisture barrier protection comparable to a 90g/m<sup>2</sup> PVC/PVdC structure. It is designed to recycle in RIC#2 stream and enable customers to improve their CO2 footprint. kpNext® RB2 has an increased formability and optical clarity compared to other polyolefin solutions, which enables a better way of processing. The best part is, our innovation works within manufacturers' current machine setup, so no reduction in line speeds occurring.



**Website:** <https://marketing.kpfilms.com/acton/fs/blocks/showLandingPage/a/43553/p/p-016c/t/page/fm/1>



**Company name:** Locked4Kids

**Country:** The Netherlands

**Product name:** Locked4Kids Wallet Box

**Product type:** -

**Date of launch:** 31/07/23

**Current development phase:** Commercialization

**Target markets:** Worldwide

**Target clients:** Pharmaceutical companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

The Locked4Kids Box Wallet is a groundbreaking pharmaceutical packaging solution tailored to prioritise child safety while maintaining user accessibility for the elderly.

- Incorporates a unique 3-step opening process. This design innovation ensures robust resistance against curious children, deterring unauthorised access
- Despite its child-resistant features, it scores 100% in senior-friendly usability, a testament to its inclusivity
- Fully integrates with existing blister packs, demonstrating its versatility in accommodating various strip sizes
- Its eco-conscious design eliminates the necessity for tear-resistant plastic lamination, thereby championing environmental sustainability
- The Locked4Kids Box Wallet not only serves as packaging but embodies the ethos of a safer, more sustainable future.

## APPLICATION AREAS

- Pharmaceuticals requiring child-proof packaging solutions.
- Over-the-counter medications and products looking for accessible designs that cater to both child safety and senior-friendliness.
- Companies aiming for environmental sustainability in their packaging solutions.

## KEY FEATURES

- **Child Safety Mechanism:** A unique 3-step opening process to deter unauthorized access by children.
- **Senior-Friendly Design:** Despite its robust child-resistant features, it boasts a 100% score in usability tests conducted among seniors.
- **Versatile Integration:** Designed to seamlessly accommodate existing blister packs, catering to various strip sizes.
- **Eco-Conscious Build:** Eliminates the need for tear-resistant plastic lamination, accentuating the brand's commitment to sustainability.



Website: <https://www.locked4kids.com/>



**Company name:** Körber Pharma Packaging Materials

**Country:** Switzerland

**Product name:** Modular- Flex Pack

**Product type:** Secondary Packaging

**Date of launch:** 01/01/24

**Current development phase:** Commercialization

**Target markets:** Pharma & Biotech, Secondary Packaging

**Target clients:** Pharmaceutical companies

**Business model:** B2B

**FACT SHEET**

## PRODUCT DESCRIPTION

Our flexible secondary packaging solution is based on a modular system. The possibility of packaging and arranging different vials, pens, etc. according to individual needs gives this product solution an innovative and flexible approach. Whether several products, in various arrangements, the basic packaging and its dimensions, remains as it is and can therefore be easily stacked and transported to save space.

## APPLICATION AREAS

Our solution has a wide range of applications, clinical trials, internal packaging & transport solutions throughout the pharmaceutical and biotech industries

## KEY FEATURES

- Modularity & Flexibility
- Easy Stacking / Transportation
- Customer Tailored solutions
- Sustainable & Recycleable Monomaterial



**Website:** <https://www.koerber-pharma.com/en/about-us/press/from-development-to-market-readiness-koerber-offers-packaging-qualification-services-from-a-single-source>

# Molly® Connected Cap autoinjector

2024



**Company name:** SHL Medical

**Country:** Switzerland

**Product name:** Molly® Connected Cap autoinjector

**Product type:** Prototype

**Date of launch:** 17/10/23

**Current development phase:** Prototype

**Target markets:** Global

**Target clients:** Biopharmaceutical companies

**Business model:** Direct sales

FACT SHEET

## PRODUCT DESCRIPTION

Discover the Molly Connected Cap, SHL Medical's digital and connected addition to the Molly modular platform autoinjector. Designed to support treatment adherence, the retrofittable cap add-on technology detects autoinjector cap removal through a mechanical sensor and utilizes a wireless mode of connection powered by Bluetooth Low Energy (BLE) beacon. Its proprietary firmware is programmed to facilitate the seamless, encrypted transfer of injection data from the Connected Cap to a patient's smartphone or a smart data transmission hub, allowing patients better control of their treatment regimens. The autoinjector cap is removed before dose administration, which enables refurbishment and recycling of the Connected Cap, ultimately facilitating circularity for a more sustainable future.

## APPLICATION AREAS

By leveraging the power that connectivity brings to at-home treatments, the Molly Connected Cap revolutionizes the significance of every injection, every patient engagement, and every invaluable data point collected. The technology is being introduced through SHL's Innovation Partnership program – allowing pharmaceutical companies to foray into digital health, generate meaningful data, and uncover the value of connected therapeutics. The Connected Cap is a powerful value add for the following areas:

1. Remote adherence monitoring: Streamlines therapy management via real-time automated tracking of the patient's at-home injection treatment. In turn, the Connected Cap enables patient self-management while supporting the reduction of HCP burden. With every injection recorded, pharma can gain real-world insight for remote patient monitoring that highlights adherence patterns to optimize treatment support.
2. Personalized patient programs: Empowers patients through tailored engagement strategies based on data, such as injection frequency and timing. The Connected Cap improves the personalization of therapies and enables targeted patient education and interventions – ultimately fostering heightened awareness, greater acceptance, and improved adherence among patients. Aside from these, treatment persistence and efficacy could also be measured over time when patient data is paired with other biometrics.
3. Decentralized clinical trials: Optimizes clinical trials through remote patient monitoring and the aggregation of clinical data for active disease surveillance. Built with integrated connectivity, the Molly Connected Cap presents a unique opportunity to effectively validate the safety and efficacy of a patient's self-injection treatment in a real-world setting without adding significant costs to the clinical trial program.
4. Value-based reimbursement strategies: Supports the assessment of reimbursement strategies – whether it is outcome-based payment or pay-for-performance. Through integration with disease management systems, the Molly Connected Cap can help dynamic and value-based pricing strategies.



Website: <https://www.shl-medical.com/digital-health/molly-connected-cap/>

## KEY FEATURES

The Molly Connected Cap represents simplicity in impactful innovation, boasting a retrofittable design that ensures easy digital integration for new and existing autoinjectors. As an add-on module that also features easy detachment from the autoinjector, the Connected Cap flexibly transforms self-injection devices into next-generation connected therapeutics while safeguarding sustainability. The Connected Cap upholds SHL Medical's sustainable design principles (i.e., design for circularity, design for sustainable materials usage, design for zero waste, and design for less) while boasting the following key features:

1. **Retrofittable technology:** Enables the introduction of connectivity to a new or existing Molly autoinjector product.
2. **Seamless usability:** Retains the Molly autoinjector's ease of use while allowing for the seamless transition into a connected autoinjector product without needing additional patient or healthcare professional (HCP) training. As a device technology that does not alter patient usability, the Connected Cap is not intrusive to the administration process of the Molly autoinjector.
3. **Faster development:** Offers flexible assembly options for faster development processes that support both clinical and commercial delivery.
4. **Digital integration:** Allows the integration of the connected autoinjector into any digital ecosystem for the generation of data and insights.
5. **Sustainability:** Supports return-refurbish-recycle programs and facilitates circularity for a more sustainable future.
6. **Agile collaboration:** Unlocks a dynamic collaboration process between SHL Medical and pharma for the pre-clinical, clinical, and commercial stages via SHL's Innovation Partnership program.



Website: <https://www.shl-medical.com/digital-health/molly-connected-cap/>





**Company name:** PACKSYS GmbH

**Country:** Germany

**Product name:** Ophthalmic plus

**Product type:** Eye drop application

**Date of launch:** 31/01/24

**Current development phase:** Commercialization

**Target markets:** Europe, North America

**Target clients:** Pharmaceutical companies

**Business model:** Contract manufacturing

**FACT SHEET**

## PRODUCT DESCRIPTION

Ophthalmic plus by PACKSYS is a significant improvement in eye-drop application. The bottle shares a similar look with comparable eye dropper systems already known on the market. However, its unique bottom design makes it an excellent choice for users with limited upper limb mobility. Unlike traditional systems made of plastic that require squeezing from the sides, this packaging is designed to be pressed on the bottom. This feature not only allows a more natural range of motion during use but also reduces the force needed to produce a drop.

## APPLICATION AREAS

The bottle is primarily designed for ophthalmic products, specially for eye drop preparations. The chosen material meets all required pharmaceutical standards and is suitable for sterilization.

## KEY FEATURES

The application of eye drops can be challenging, especially for people with limited mobility in their arms and fingers. Using traditional squeeze bottles requires holding the head, arm, elbow and wrist in an unnatural position, far away from the neutral zero position of the joints. This difficulty makes it even harder to exert enough force to squeeze the bottle, produce a drop and aim accurately at the eye.

PACKSYS offers a solution with a newly designed eye drop bottle that is pressed on the bottom. The bottom design resembles a collapsible bellows, which allows for a more natural range of motion and reduces the force needed by approximately 60% compared to similar squeeze bottles.

When creating the Ophthalmic plus system, we also considered the producers and fillers of eye drop products. Since the PP bottle's barrier properties and dimensions are similar to standard bottles used for eye drops, the switch on the filling lines shouldn't be that much of a challenge. Moreover the bottle can be combined with commonly used droppers and closures for this neck size available on the market.



Website: <https://packsys.de/en/>

# Oxyblock Eco and Multiblock Eco

# 2024



**Company name:** LOG Pharma Primary Packaging

**Country:** Israel

**Product name:** Oxyblock Eco and Multiblock Eco

**Product type:** Pharma Primary Packaging

**Date of launch:** 30/11/23

**Current development phase:** Prototype

**Target markets:** Europe, UK, Israel, Turkey, India, North America and more

**Target clients:** Pharmaceutical companies

**Business model:** Direct sales

**FACT SHEET**

## PRODUCT DESCRIPTION

We are excited to announce the introduction of the Oxyblock and Multiblock Eco series, the latest addition to our Barrier - Primary Pharma Packaging line of products.

Oxygen ranks as the second leading root cause of drugs degradation, with water being the first. To address this issue, LOG has developed a series of world-leading barrier packaging solutions to extend the shelf life and protect innovative and generic drugs from the exposure to oxygen and/or moisture. The OxyBlock product family offers exceptional oxygen permeation barrier protection. The Multiblock product family offers exceptional oxygen and moisture barrier protection. Established FDA-listed pharmaceuticals, packaged with our Barrier line are already available in the market.

Oxyblock® ECO and Multiblock® ECO are newly developed packaging forms, designed for oral solid dose formulations. This line is produced using a unique technology based on the vast experience and knowhow of LOG, features an excellent oxygen and moisture barrier characteristic, and a cost-effective solution with over 30% reduced plastic use compared to other Passive Barrier bottles.

## APPLICATION AREAS

Pharmaceuticals and Nutraceuticals formulations sensitive to oxygen, moisture or both. Oxyblock Eco and Multiblock Eco offer passive barrier, cost-effective and Eco-friendly solutions.

## KEY FEATURES

- Excellent Oxygen and Moisture Passive Protection
- Increase shelf life period and keep drop-ins active for in-use period
- 30% less use of plastic
- Oxyblock ECO and Multiblock ECO bottles designed and can be recycled in the HDPE waste stream in the US\*, Europe\*, Israel\*
- Cost Effective

\*Recycling standards may vary from state to state and country to country and often revised therefore it is recommended to carefully review the guidelines in each targeted country



Website: [www.logpac.com](http://www.logpac.com)

**PHARMAPACK EUROPE INNOVATION eBOOK**

Visit our [Website](http://www.logpac.com)

# 21



**Company name:** Berry Global

**Country:** Spain

**Product name:** PneumoHaler

**Product type:** -

**Date of launch:** 18/10/23

**Current development phase:** Prototype

**Target markets:** Europe, India, MEA, US , Worldwide

**Target clients:** Pharmaceutical companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

PneumoHaler, a lightweight, breath-actuated, multidose inhaler dose counter for the control and treatment of asthma and Chronic Obstructive Pulmonary Disease (COPD). The inhaler helps to improve asthma and COPD patients' compliance and adherence by reducing patient coordination errors and breathing variability.

## APPLICATION AREAS

Asthma & COPD Lung diseases. The PneumoHaler brings several innovative features to the market, advancing and improving current solutions for inhaler devices. Its ground-breaking design and functionalities set it apart from traditional PMDI inhalers, inspiring future development in the field. One key innovation of the PneumoHaler is its breath-actuated mechanism, which eliminates the need for patient coordination. By automatically releasing medication when the patient inhales, it addresses coordination errors that often lead to inefficient drug delivery. This advancement enhances treatment efficacy and simplifies the inhalation process for patients. The inclusion of a dose indicator is another significant improvement. This feature allows patients to accurately track their medication usage, promoting compliance and adherence to prescribed treatment regimens. The dose indicator empowers patients to take control of their health by ensuring they are aware of their remaining medication, reducing the risk of missed doses or overuse. The PneumoHaler's adaptability to different valves and canisters is yet another groundbreaking aspect. This flexibility allows Caretakers to choose the valve and canister that best suits patient specific needs and preferences. By offering a personalized treatment experience, the PneumoHaler addresses the diverse requirements of patients and fosters future development in inhaler customization.

Furthermore, the PneumoHaler incorporates an advanced mechanical system that enhances its reliability and longevity. The design ensures that the device's actuator spring is not under compression when the mouthpiece is closed, minimizing wear and tear. This innovation prolongs the lifespan of the inhaler, reducing the need for frequent replacements and contributing to overall cost-effectiveness. The PneumoHaler's focus on patient comfort is also noteworthy. Its rounded design and large mouthpiece prioritize user experience, particularly for individuals with physical limitations or respiratory difficulties. By providing maximum comfort and ease of use, the PneumoHaler enhances patient satisfaction and encourages regular inhaler usage. The PneumoHaler's innovation and improvements have the potential to inspire future development in the field of inhaler devices. Its breath-actuated mechanism, dose indicator, adaptability, reliability, and patient-centric design demonstrate the possibilities for enhancing treatment outcomes and patient experience.



**Website:** [WWW.BERRYGLOBAL.COM](http://WWW.BERRYGLOBAL.COM)

## KEY FEATURES

Introducing the PneumoHaler, a revolutionary breath actuated inhaler with a dose indicator designed to enhance compliance and adherence in asthma and COPD patients. This inhaler reduces patient coordination errors and breathing variability while providing maximum comfort and ease of use for improved asthma and COPD control. The PneumoHaler features a rounded design and a large mouthpiece, ensuring effortless handling and optimal user comfort. The inclusion of a dose counter/indicator allows accurate tracking of medication usage.

An outstanding feature of the PneumoHaler is its advanced mechanical system activated through the actuator. This system ensures long-term reliability by minimizing wear and tear. When the mouthpiece is closed, the inside spring of the actuator is not under compression, prolonging the device's lifespan. The PneumoHaler easily adapts to different valves and types of canisters, accommodating various medication delivery systems. This adaptability empowers patients to choose the valve and canister that best suits their preferences, providing a personalized treatment experience.

The PneumoHaler offers customizable printing and labeling options tailored to individual needs. With a wrap-around label space, there is ample room for essential instructions and necessary information. The device supports clear and legible labeling, enhancing usability for patients.

In summary, the PneumoHaler is a game-changing breath actuated inhaler that improves compliance and adherence in asthma and COPD patients. With its user-friendly design, advanced mechanical system, adaptability, and customizable printing options, this inhaler delivers optimal medication delivery and empowers patients to take control of their treatment.



**Company name:** Nissha Europe GmbH

**Country:** Germany

**Product name:** Pulp-Injection Components

**Product type:** Components of Self-Injection-Devices

**Date of launch:** 01/05/25

**Current development phase:** Prototype

**Target markets:** Europe, NA, Japan

**Target clients:** Pharmaceutical companies

**Business model:** Cooperation with manufacturers of self-injection-devices

FACT SHEET

## PRODUCT DESCRIPTION

Nissha has developed a new injection molding technology called Pulp-Injection – using pulp instead of plastics. Pulp-Injection products have similar features and functions as injection molded plastic parts.

Initially Nissha started to produce trays for self-injection-devices, e.g. Tremfya/SelfDose. Now, Nissha has developed functional components, e.g. caps of self-injection pens.

As a first prototype of components, Nissha has developed a cap for Haselmeier's D-Flex pen. The pulp-injection cap has the same design. Thin walls and inner undercut structure contribute to a detailed and complex product design with high dimensional accuracy. The cap fits well on the original pen, with a tight fit ensuring it stays well on the main device. The pulp-injection cap is rigid and has high impact strength, with a tactile, silky material.

Pulp-Injection consists of mainly pulp and starch, which contributes to the reduction of usage of petroleum-based plastics. The products are recyclable in a paper recycling system and can be mixed with other used paper (according to PTS RH-021 standard test). We carried out environmental tests under three conditions (1. -40°C 96h 2. 85°C 96h 3. 60°C 90%RH 96h). We find no critical dimensional change and colour degradation on tested samples after these acceleration tests.

The Pulp-Injection has lower specific gravity by approx. 5.5% compared to Polypropylene material. This contributes to the reduction of CO2 emissions during transportation and in its cost.

## APPLICATION AREAS

- Parts of self-injection devices as self-injection external cap, a part of components
- Secondary packaging as trays for self-injection devices
- Closures of bottles as closures with thread structure for dry and liquid-based materials.
- Refill cups for water based fillings



Website: [www.bioverpackung-nissha.com](http://www.bioverpackung-nissha.com)

## KEY FEATURES

The Pulp-injection material is mainly made of pulp, starch and water. Products are formed by injection molding. The material is injected into an injection molding tool and dried in the cavity.

Pulp-injection products have similar characteristics and features as injection molded plastic parts.

- Complex and precise product design
- High rigidity and impact strength
- Stackable and nestable designs are possible
- Silky touch texture

Pulp-injection products are recyclable in the paper recycling system.

Pulp-injection reduces the usage of petroleum-based plastics.

Please see the attached the comparison of pulp material and industrial-grade plastic.





**Company name:** SCHOTT Pharma

**Country:** Switzerland

**Product name:** SCHOTT TOPPAC(R) freeze

**Product type:** -

**Date of launch:** 01/06/23

**Current development phase:** Commercialization

**Target markets:** Worldwide

**Target clients:** Pharmaceutical companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

Recent drug technologies require ultracold temperatures during transport and storage. For the mRNA COVID vaccines, transport temperatures were seen to go as low as  $-100^{\circ}\text{C}$ . Other drug therapies, such as cell and gene therapy might need to be stored at even lower temperatures, down to  $-196^{\circ}\text{C}$ .

These cryogenic conditions make the necessary lifecycle management activities difficult. Transitioning from a container (vial) to an injection device (PFS) is burdened by the lack of experience on PFS functionality and CCI at these temperatures as well as the absence of available PFS options for this intended use. Past industry presentations have shown the limitations of standard glass syringes at low temperatures, highlighting the need for an alternative PFS that works in these high-demanding cryogenic conditions.

SCHOTT TOPPAC(R) freeze provides the first and only pre-fillable syringe worldwide that showed functionality and container closure integrity for these deep-cold applications, even down to  $-180^{\circ}\text{C}$ .

## APPLICATION AREAS

This allows deep-cold applications (mRNA, viral vectors, cell- and gene therapies) to look for injection device life cycle options.

## KEY FEATURES

A cyclic olefin copolymer pre-fillable syringe developed for deep-cold applications. Features that differentiate this syringe and allow this syringe to show container closure integrity down to  $-180^{\circ}\text{C}$ , being worldwide the first and only pre-fillable syringe to claim this feature, are:

- Syringe material specifically chosen for its thermal expansion coefficient properties
- Rubber components chosen for their glass transition temperature
- Cross-linked siliconization for low subvisible particle generation
- Improved quality control strategy to guarantee consistent quality for critical to attribute dimensions for CCI
- Pre-tested data package for the entire syringe system for low temperature intended use



**Website:** <https://www.schott-pharma.com/en/products/syringes/schott-toppac-freeze>

# Semi-clear paper tamper evident label

2024



**Company name:** Faller Packaging

**Country:** Germany

**Product name:** Semi-clear paper tamper evident label

**Product type:** Tamper-evident seal label

**Date of launch:** 30/09/23

**Current development phase:** Commercialization

**Target markets:** Europe

**Target clients:** Pharmaceutical companies

**Business model:** Pharmaceutical labels

FACT SHEET

## PRODUCT DESCRIPTION

Eco-friendly packaging design for fibre-based pharmaceutical packaging due to paper closure labels. Like standard sealing labels made of film, the Faller semi-clear paper tamper evident label offers a non-tamper guarantee for folding cartons according to the European Directive 2011/62/EU. Placing the label over the tuck-in flap of the folding carton prevents tampering with the product because the first opening is made clearly visible.

The closure label has the following properties:

- The paper face material has a milky appearance and offers good clarity and legibility of the print
- Strong adhesion on all lacquer-free and dispersion-coated folding cartons
- No residue-free removal possible on folding cartons
- Perforations for easier opening are optional, but not mandatory

## APPLICATION AREAS

- Dispense the semi-clear paper tamper evident label on tuck-in flap when packaging by machine
- Theoretically possible at each relevant point with special constructions when packing manually
- The special adhesive strength starts to work after 24 hours and then takes full effect (high final adhesive bond)
- The semi-clear paper closure label can be easily cut and opened with a fingernail

## KEY FEATURES

- Secure tamper-proof protection to prevent folding cartons being manipulated
- Closure label with non-tamper guarantee complies with standard EN:16679:2014
- Paper from sustainable forestry, recyclable and biodegradable
- No changes to folding carton constructions required
- No influence on machinability
- Additional product and brand protection



Website: <https://www.faller-packaging.com/en/labels>

# Sorrel Wearable Drug Delivery Platform

2024



**Company name:** LTS Lohmann

**Country:** Israel

**Product name:** Sorrel Wearable Drug Delivery Platform

**Product type:** On-Body Drug Delivery Device

**Date of launch:** 26/12/23

**Current development phase:** Commercialization

**Target markets:** Global

**Target clients:** Pharmaceutical companies

**Business model:** B2B

FACT SHEET

## PRODUCT DESCRIPTION

Sorrel wearable drug delivery platform provides a patient-centric and partner-focused solution designed for the simple and efficient administration of large volume and high viscosity medications. Intuitive and easy to use, Sorrel's wearable device arrives to the patient ready to use, pre-filled and pre-loaded, enhancing the user experience and encouraging adherence to treatment therapies, while reducing the risk of medication errors. Being primary container-agnostic, Sorrel's device is able to accommodate a wide range of drug reservoirs in volumes ranging from 1 mL to 20 mL vials and cartridges. This versatility enables Sorrel to collaborate with multiple pharmaceutical partners to meet specific drug delivery requirements.

## APPLICATION AREAS

- The increased use of biologics, comprising higher viscosity and larger volumes than chemically synthesized drugs, cannot be administered by traditional hand-held injectors and are migrating towards administration with wearable devices.
- Due to their susceptibility to shearing, resulting in drug degradation, large molecule medications dictate an appropriate pumping mechanism. Sorrel's technology enables a gentler handling of biologics, maintaining molecular integrity.
- A consistent challenge associated with the move towards home care has been ensuring that patients keep to their treatment. Sorrel's ease of use, achieved through its pre-filled and pre-loaded device configuration, enhances the self-administration experience and encourages patient adherence.
- Connectivity via Bluetooth and NFC enables healthcare professionals to monitor patients outside of hospital settings and ensure they're keeping to their therapy.



Website: <https://www.ltslohmnn.com/en/>

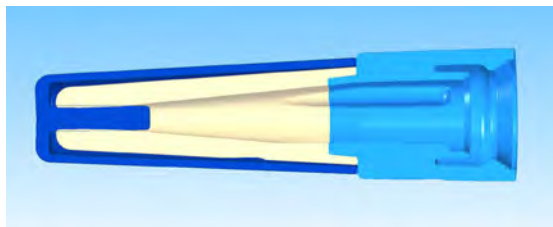
## KEY FEATURES

The Sorrel device utilizes a reliable electro-mechanical pumping mechanism for accurate and controlled drug delivery. The unique design creates low shear stress on the molecule, thus maintaining the drug's molecular integrity. To overcome the inherent challenge of maintaining sterility in pre-loaded devices, Sorrel utilizes first-of-its-kind UV LED technology for disinfection at point-of-care, disinfecting the point of engagement between the primary container and the device's fluid path. A UV LED is optimal for meeting the size, cost and energy requirements essential for a discreet and fully disposable wearable device.

The device also incorporates multiple smart sensors, including air detection, occlusion, cartridge placement, needle positioning and on-body attachment. Combined with a series of internal system checks – as well as visual, audio and tactile indicators – this guarantees successful self-administration. The device is fully connected, via both Bluetooth and near-field communication (NFC), allowing patients to share treatment data with caregivers and healthcare providers. Caregivers can therefore monitor patients outside of hospital settings and ensure they are keeping to their therapy routines

# Twist'n'Use Soft long nozzle tube

2024



**Company name:** Hoffmann Neopac AG

**Country:** Hungary

**Product name:** Twist'n'Use Soft long nozzle tube

**Product type:** -

**Date of launch:** 30/09/24

**Current development phase:** Commercialization

**Target markets:** NA, Europe, UAE, China

**Target clients:** Pharmaceutical companies

**Business model:** -

FACT SHEET

## PRODUCT DESCRIPTION

Hoffmann Neopac's Twist'n'Use Soft long nozzle tube is a unique innovation developed through months of research. It stands alone in the market with unmatched features and capabilities.

The design focuses on materials, functionality, and sustainability, providing a high-performance barrier without the need for extra blisters. This streamlines the process, enhances the customer experience, and aligns with eco-friendly practices. Direct offset printing ensures a high-quality appearance and reproduces intricate designs with precision. Environmentally friendly inks enhance sustainability, consistent quality, and colour accuracy. The result is a unique primary packaging with the highest protection that maintains a professional appearance and brand identity.

## APPLICATION AREAS

- Application for animals, especially for pets: Eye, ear, fur
- Application for humans: Eye, ear, hair, lip, teeth, gum, nose, nails
- Application for broken subjects: Glue

## KEY FEATURES

The tube offers precision and control in applications like medical treatments where accuracy is crucial. The tamper-evident cap system releases an inner pin when turning the cap, without any loose parts. Available in Ø 10-16mm for 1-5ml volume, its soft, flexible nozzle design allows access to sensitive areas like eyes, mouth or ears. A targeted, gentle application that reduces the risk of injury.

It's lightweight, easy to handle, and avoids contamination, making it suitable for pharmaceuticals, dental, and animal health applications. It is produced under ISO 8 clean room conditions in Switzerland or in the US.



Website: <https://www.neopac.com/en/tubes/polyfoil-twistnuse>



**Company name:** Datwyler

**Country:** Belgium

**Product name:** UltraShield™

**Product type:** Rubber elastomeric closures

**Date of launch:** 25/04/23

**Current development phase:** Commercialization

**Target markets:** WW with a focus on EU & NA

**Target clients:** Biopharmaceutical companies

**Business model:** Direct sales

## PRODUCT DESCRIPTION

UltraShield™ is the contemporary solution from Datwyler providing excellent drug compatibility and cold storage capabilities. Its modern bromobutyl rubber substrate coated with a fluoropolymer film forms a protective barrier that minimises extractables and offers ultra-protection against aggressive excipients. In addition, UltraShield™ allows for secure storage of drugs at ultra-low temperatures with a wide range of crimping parameters.

## APPLICATION AREAS

- Modern drug formulations with high container closure interaction sensitivity (ao. Biotech)
- Drug formulations that due to their nature require deep frozen storage conditions (-80°C.)
- Drug formulations based upon aggressive excipients that demonstrate challenges for standard rubber primary packaging components

## KEY FEATURES

UltraShield's concept makes it unique compared to similar offerings on the market due to the following:

- The flange is covered with silicone then cured with e-beam technology to maintain optimal machinability while obtaining best-in-class subvisible particle levels without the need for curing agents
- The unique design of the target area results in reduced piercing thickness, improving penetration forces and fragmentation to accommodate the use of Closed System Transfer Devices
- The stopper produces an efficient seal enabling the secure storage of drugs under ultra-low temperatures up to -80°C with a broad range of crimping parameters
- The film barrier limits drug-stopper interaction and forms an ultra-protection against aggressive excipients
- The stopper is made of ultra-low extractable bromobutyl rubber substrate FM457 on which is applied a fluoropolymer film that covers the complete drug contact area and forms a barrier to obtain a best-in-class extractables and leachables profile
- UltraShield™ is manufactured according to Datwyler's FirstLine® concept ensuring the highest quality levels on the market



Website: <https://datwyler.com/healthcare/applications/vials/ultrashield>





**Company name:** NEMERA

**Country:** France

**Product name:** UniSpray

**Product type:** -

**Date of launch:** 31/12/23

**Current development phase:** Prototype

**Target markets:** Worldwide including NA, Europe

**Target clients:** Pharmaceutical companies

**Business model:** -

**FACT SHEET**

## PRODUCT DESCRIPTION

Multi-dose nasal spray pumps find their place in chronic therapies, but not in acute applications. When the device use is punctual, repriming might be needed before use. Also, a large volume of a drug content could be wasted as it's a one-off usage. Consequently, novel therapies are starting to emerge with a precise, ready-to-use unit-dose nasal spray for systemic target applications. UniSpray is a ready-to-use primeless nasal device with accurate single-metered liquid dose delivery. It offers one-handed activation with 360° functionality for emergency lifesaving and crisis treatments. Thanks to its ergonomic design, it is intuitive and easy-to-use. UniSpray is a unidose system concept under development, designed to be robust and compatible with existing marketed primary containers. We can assure reliability and full regulatory compliance of our unidose concept.

## APPLICATION AREAS

Emergency lifesaving & crisis treatments ie: potent drug overdoses, migraines...

## KEY FEATURES

Key features:

- Ready-to-use, primeless device, 360° functionality
- Compatible with existing primary drug container
- Single dose liquid delivery device with one accurate 100µL dose
- Compliant with regulatory requirements
- For new and repurposed drug, as well as generics

Key Benefits:

- Reliable for emergency and crisis treatments with visual cue of premature activation
- Intuitive and robust device with ergonomic finger rest
- Two-side labeling surface
- Safe and secured with no risk of accidental activation
- Accelerates time-to-market thanks to possible adaptations to conventional filling lines
- Equivalent utilization and performance as originators thanks to our in-vitro bioequivalence capability
- Possible customization options (e.g : finger rest color, spray performance, pediatric nozzle, etc.)



Website: <https://www.nemera.net/products/ear-nose-throat/unispray/>