



NEST[®]

COP Pre-filled Syringe

CDE Number: B20230000509

NEST COP Pre-filled Syringes are in high demand in the pharmaceutical market due to their small size, portability, accurate drug dosage provision, and low risk of contamination. They are widely used as a container of high-value products such as biologics, biochemical products, anti-thrombotic drugs, and beauty products

Serving as alternatives to borosilicate glass, cyclic olefin polymers (COP) offers a high degree of flexibility in design. Its high crack-resistance also reduces logistics and transportation costs. In terms of other physical and chemical properties, COP exhibits high transparency, rigidity, heat resistance, low refractive index, low protein adsorption, and is free from heavy metals and tungsten. Compatibility tests with pharmaceuticals indicate no delamination. And it can be manufactured with low or no silicone content, addressing the limitations of glass pre-filled syringes.

Application

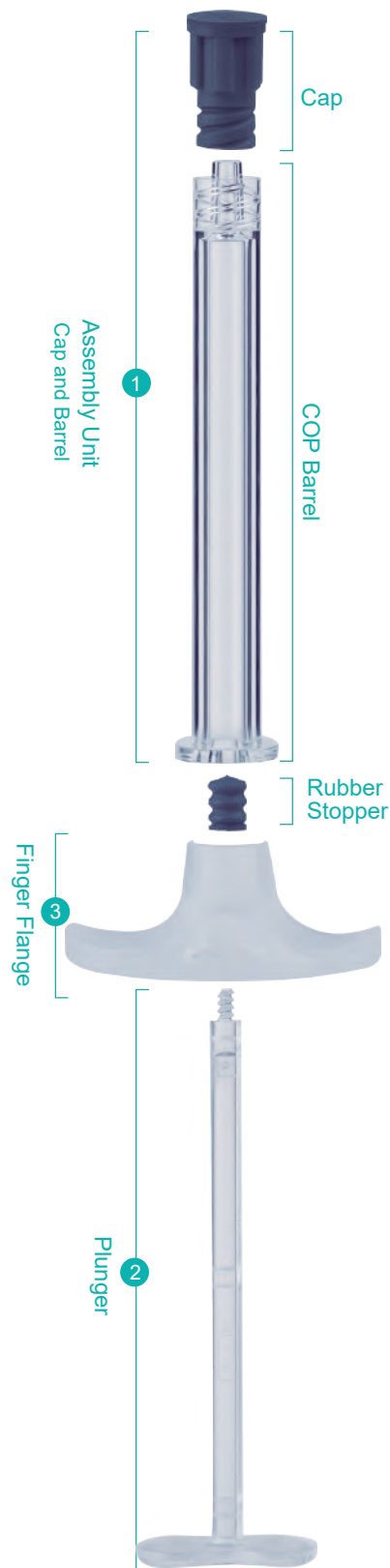
- Container for biological agents (such as GLP-1, hormones, monoclonal antibodies)
- Ophthalmic applications
- Emergency drugs
- Vaccines
- Medical aesthetic drugs
- Compatible with automatic injectors

 +86-510-6800 6788

 info@nest-wuxi.com

 www.cell-nest.com

NEST COP Pre-filled Syringe is designed to meet your ever-changing needs. We offer comprehensive process services, which include design, production, and pre-sterilization, to provide you with the perfect solution.



● Key Features

- Excellent drug stability, low protein adsorption, and barrier properties against water vapor and oxygen permeation.
- Eliminates the need for drug reconstitution before injection, reducing the risk of drug contamination.
- Accurate drug composition, avoiding changes in drug proportions during on-site drug preparation.
- Luer Connector, in line with the International Standard, is included to ensure secure connections and achieve excellent sealing performance. This reduces drug leakage and prevents the risk of needle rotation and popping during injection.
- COP offers a high degree of design flexibility and allows for greater customization.
- Compatible with various sterilization methods, such as ethylene oxide sterilization and steam sterilization.
- Complies with ISO 9001, ISO 15378, YBB, and USP Class VI standards.

● Advantages of COP material compared to other materials.

Features	COP	Glass	PP
Gas permeability (O ₂ , N ₂ , CO ₂)	M	G	M
Water vapor permeability	G	G	M
Transparency after steam sterilization	G	G	P
Transparency after EP sterilization	G	G	P
Transparency after gamma ray sterilization	G	G	P
Drug pH change	G	P	G
Brittleness	G	P	G
Precision Molding/processing type	G	P	G
Waste characteristics/combustion characteristics	G	P	G
High purity	G	G	M

Remark: G-Good, M-Moderate, P-Poor



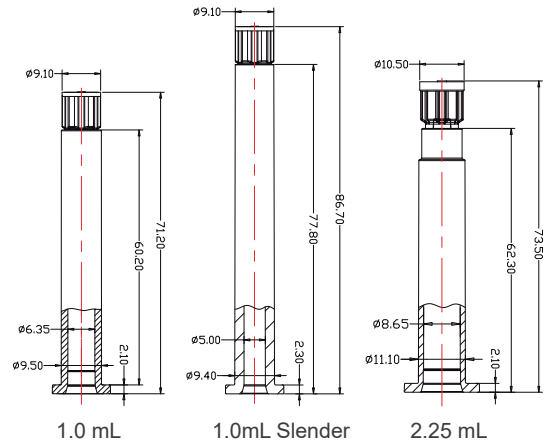
● Rubber Stopper and Luer Cap

Made of butyl rubber bromide and compliant with European Pharmacopoeia, United States Pharmacopoeia, and Japanese Pharmacopoeia.

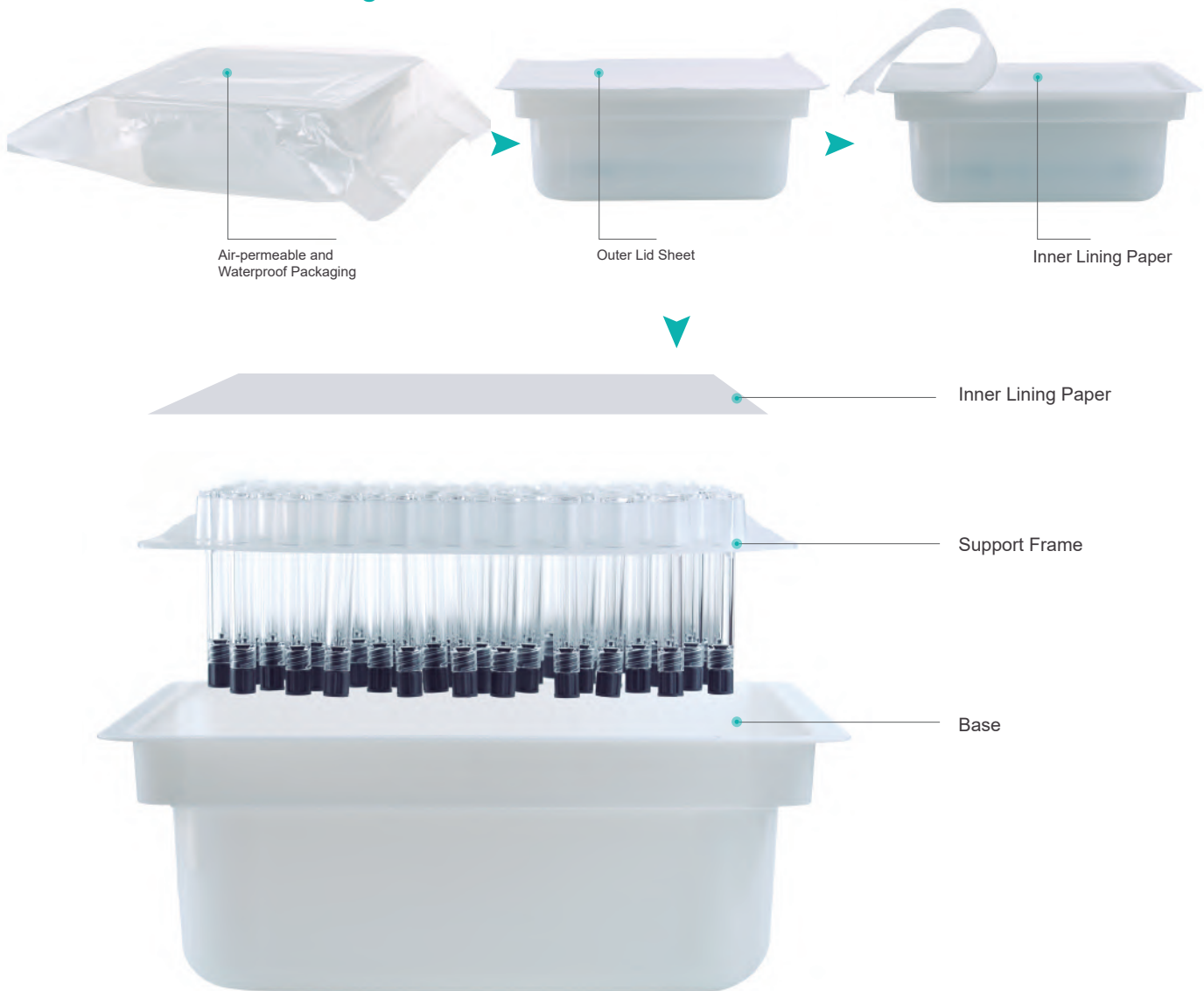
Product	Material	Rubber Stopper Formulation	Color
Rubber Stopper	Butyl Bromide	HS264	Black
Luer Cap	Butyl Bromide	HM174	Gray

● Order Information for Assembly Unit

Specifications	Packaging		Cat.NO.	Matching Accessories
	/Pack	/Case		
1.0 mL	100	1500	205512	Plunger205591/Finger Flang205592
1.0mL Slender	100	1500	205502	Plunger205571/Finger Flang205572
2.25 mL	100	1500	205522	Plunger205581/Finger Flang205582



● 10x10 Nested Configuration



- The specification for pre-sterilized wash-free and sterilization-free NEST Pre-filled Disposable Glass Intranasal Atomization Device is now available. They are produced in a cleanroom that adheres to GMP management standards, from injection molding to final packaging.
- State-of-the-art automated production process is adopted to ensure minimal tolerance and stable quality of the barrel.
- Suitable for various sterilization methods, including ethylene oxide and steam sterilization.

● Plunger

- Design Compatibility
- Compliant with ISO 11040 standard
- Material: Polycarbonate (PC)
- Fit high-speed sealing production line
- Compatible with plunger chamber
- Customizable shape, available in standard or custom colors
- Manufactured in a class 10,000 cleanroom
- Sterilized by electron beam

● Order information for Plunger (Double-bagged, non-sterile)

Specifications	Packaging		Cat.NO.	Matching Accessories
	/Pack	/Case		
1.0 mL	5000	5000	205591	Plunger205512/ Flange205592
1.0mL Slender	5000	5000	205571	Plunger205502/ Flange205572
2.25 mL	5000	5000	205581	Plunger205522/ Flange205582



● Flange

- Polypropylene (PP)
- Compatible with ISO 11040 compliant check valves with injection flange or beveled flange
- Manufactured in a Class 10,000 cleanroom
- Customizable design
- Sterilized by electron beam

● Order information for Flange (Double-bagged, non-sterile)

Specifications	Packaging		Cat.NO.	Matching Accessories
	/Pack	/Case		
1.0 mL	10000	10000	205592	Plunger205512/ Flange205591
1.0mL Slender	10000	10000	205572	Plunger205502/ Flange205571
2.25 mL	10000	10000	205582	Plunger205522/ Flange205581

