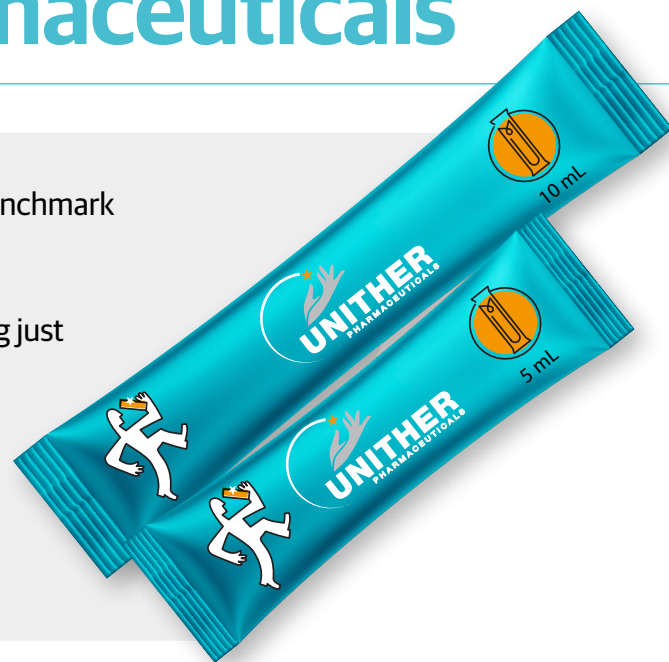


The Liquid Stick-Pack by Unither Pharmaceuticals

Unither Pharmaceuticals is the world's undisputed benchmark in liquid stick-pack technology.

The liquid stick-pack offers the possibility of delivering just the right dose with good precision. It is ideal for use in populations that have difficulties swallowing (children and seniors), as well as for patients with active lifestyles, thanks to its ease of administration (without water).



Turnkey products

As the pioneers in liquid stick-pack technology, Unither's international, multidisciplinary teams propose a comprehensive range of services, covering the whole of the product lifecycle from preformulation through to development, manufacturing and packaging.

The development of stick-pack formulations that are tailored to the active substance, administration route and patient needs, while meeting all the regulatory requirements at the same time, is a cutting-edge know-how developed by our unit specializing in development, based in Bordeaux.

Unither's industrial sites then place all their CMC expertise at your disposal, depending on the applicable requirements:

- Drafting the IMPD/IND,
- Drafting the MA application dossiers (modules 2.3 and 3) and technical dossiers for medical devices (manufacturing section),
- Drafting of variation applications,
- Responses to pharmaceutical questions from the authorities.

The teams can also advise you and put forward pharmaceutical development strategies that meet the regulatory requirements.

A client-centric culture and philosophy of innovation

Driven by its commitment to its clients' success, Unither Pharmaceuticals is constantly in search of innovative products that meet patients' needs and offer ever-greater satisfaction. For example, the company is developing preservative-free formulas and has invested in class C production lines with laminar flow hoods.

Unither has always worked in close collaboration with packaging material suppliers in order to provide its clients with solutions that are innovative, sustainable and competitive.

More than 10 years ago, Unither Pharmaceuticals was a precursor, working in partnership with the R&D teams at Amcor, in the design of materials with new, polyolefin-type sealing layers which are chemically inert against sensitive active ingredients.

Unither Pharmaceuticals has also worked in partnership with Amcor to implement original StayClean solutions, with very low leachable and extractables levels with a wide range of liquid products, and even provide efficient protection for alcohol solutions by eliminating delamination and corrosion.

Since 2019, Unither has given like Amcor a commitment for the future: to develop and produce liquid stick-packs that use recyclable materials for the primary packaging, while preserving product integrity. In order to achieve this, Unither is working in partnership with Amcor on new polyolefin-based packaging layers. The development work is underway and new materials should be appearing on the market by 2025. In coming years, Unither Pharmaceuticals is committed to increasing its use of recyclable packaging materials considerably on its industrial sites.

With its materials supplier Constantia, Unither Pharmaceuticals has studied the physico-chemical mechanisms and interaction between containers and contents with materials produced using coextrusion technologies. These film materials may contain as many as 5 different layers and thus allow optimal adaptation in order to protect the integrity of the contents. Thanks to these studies conducted with the supplier of the materials, Unither Pharmaceuticals has developed an ability to implement solutions that are tailored to each product, a skill that is widely recognized among clients.

StayClean solutions, with very low leachable and extractables levels with a wide range of liquid products

- PET
- Aluminum
- PolyInert



StayClean structure



- oPET 12μ
- Extrusion lamination Aluminum
- Coextrusion coating



Production on three continents

Our three industrial facilities dedicated to liquid stick-packs on three continents (in France, the USA and Brazil) boast robust industrial know-how in terms of quality and regulatory compliance (EMA, FDA, ANVISA, RUSSIA). As all three facilities have comparable production facilities, Unither Pharmaceuticals can also offer unrivalled security for your production (with back-up sites).

Big production capacities

Unither Pharmaceuticals has total annual capacity in excess of 400 million sticks between its three plants (Colomiers, France; Rochester, NY, USA; Barretos, Brazil). With annual growth of 10% in capacity, Unither is stepping up its investment strategy, especially in small formats of less than 5ml

Technological flexibility

Unither's industrial facilities boast maximum technological flexibility for manufacturing a wide range of medicinal substances (generics, branded medicines, OTC products) and cosmetics in stick-packs. The facilities are designed for the manufacture of medium-to-large batches (with or without preservatives) and have filling facilities ranging from 2 to 15 ml.

Turnkey solutions

On the strength of 25 years of experience in the development of drugs and medical devices which it then licenses to its clients, Unither Pharmaceuticals is delighted to open up new commercial opportunities for you around the world.

Our in-depth understanding of patients' needs and our experience in product development and process implementation mean that our clients can count on their products being marketed in optimal conditions.

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