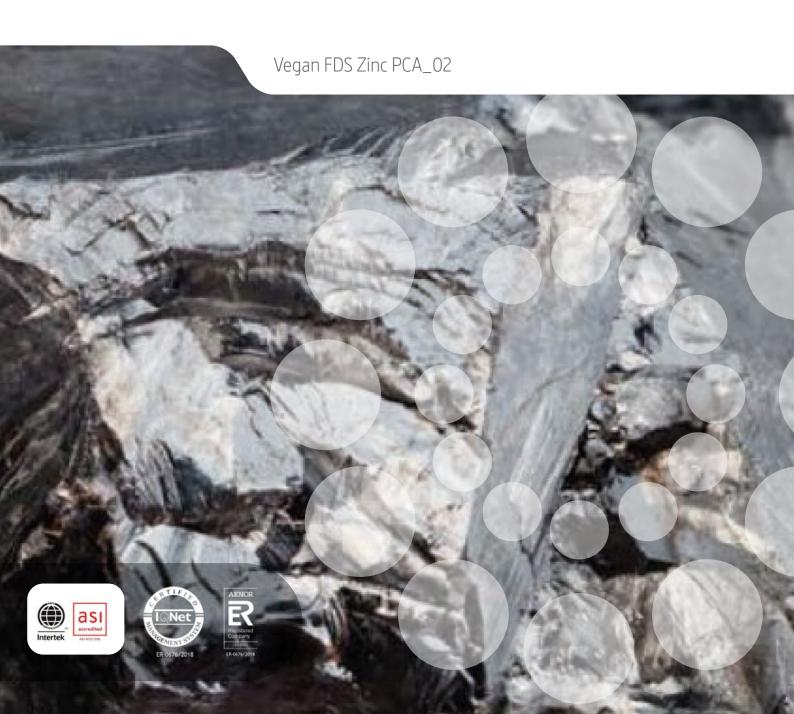




VeganFDS-ZINC PCA

Follicular Delivery Nanovesicles with 3% Zinc PCA



VeganFDS-ZINC PCA



Zinc PCA is the zinc salt of the L-PCA (pyrrolidine carboxylic acid) a doubly active complex that provides the skin and hair with the beneficial effects of the zinc and L-PCA.

Zinc is involved not only in the synthesis of the nucleic acids, including the DNA, but also in the synthesis of proteins, cell division and in the structure and coenzymatic activation of many key molecules in the body and the skin. It also prevents the development of microbial infections thanks to its considerable antiseptic properties. It has been shown that zinc reduces sebum secretion by inhibiting the 5 α - reductase.

When joining L-PCA to an active molecule such as zinc, it becomes a physiological vector which optimises its bioavailability and in addition acts as a signalling molecule to stimulate the epidermal differentiation and strengthen the skin barrier function.

ACTIVE INGREDIENT PROPERTIES

- Anti-seborrhoea (skin and scalp).
- Mattifies the skin to reduce shininess caused by excess grease.
- Mitigates bacterial growth.
- Improves the appearance of acne-prone skins.
- Helps to reduce body odour.
- Controls and prevents dandruff.

BENEFITS OF THE ENCAPSULATION VeganFDS

- The Zinc-PCA protects against degradation caused by pH or interaction.
- Delivery of the active ingredient to the interior of the hair follicle which optimises its access to the sebaceous gland.
- Increases the bioavailability of the synergetic active ingredient Zinc +L-PCA.
- Cationic finishing system for greater adherence and resistance to washing.
- Greater efficiency and stability.

PROPERTY CHARACTERISTICS

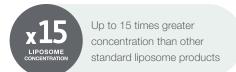
- Zinc PCA encapsulated at 3% in the INdermal Vegan FDS system.
- White coloured liquid.
- Biomimetic nanovesicle with increased hydration and restorative effect.

IN VIVO EFFICACY STUDY

After 28 days, the sebum levels were significantly reduced by 19,20%









INCI

AQUA, MANNITOL, PHOSPHATIDYLCHOLINE, GLYCERIN, ZINC PCA, CETYL ALCOHOL, POLYGLYCERYL-10 LAUREATE, SODIUM BENZOATE, POTASSIUM SORBATE, SORBITAN OLEATE, CETRIMONIUM CHLORIDE, SODIUM CHLORIDE, PHYTOSPHINGOSINE.







FOLLICULAR DELIVERY SYSTEM

The active ingredients encapsulated in the "Follicular Delivery" systems are delivered specifically to the hair follicle for a more intense and precise effect on the structures and cells located there: the hair bulb, the dermal papilla and the sebaceous gland.

The "Follicular Delivery" nanovesicles transport the active ingredients towards the deepest areas of the hair follicle without needing to use conductors with alcohol solvents to promote absorption and thereby completely avoiding the adverse effects of dryness and irritation that such solvents generate.

The "Follicular Delivery" system which INdermal produces, is particularly effective in the protection and **conduction of 5-\alpha reductase ingredient inhibitors** given that it facilitates their reaching the sebaceous gland via the main excreting sebaceous conduit in the hair follicle, being the specific delivery target of these advanced and new generation nanovesicles.

Furthermore, the hydro dispersible nature of the encapsulated product makes it the **perfect option** for the formulation of water-based cosmetics which are the preferred choice of cosmetics for users with greasy hair or skin.





OTHER DELIVERY SYSTEMS AVAILABLE



DEEP DELIVERY SYSTEM

The active ingredients encapsulated in the "Deep Delivery" systems are delivered specifically to the deepest layers of the epidermis in order to have the most precise and intense effect on the structures and cells located therein: melanocytes, Langerhans cells, keratinocytes, basal cells, Merkel cells...



CORNEUM DELIVERY SYSTEM

The use of these superficial delivery systems substantially increases the concentration of the active ingredient in the stratum corneum, minimalizing penetration at deeper levels. This is particularly useful in avoiding unwanted effects that can be caused at this level, for example when using active ingredients with a high irritant capability, like AHA.



HAIR DELIVERY SYSTEM

The "Hair Delivery" nanovesicles are formulated with cationic phospholipids and ceramides which give them high capillary adhesion and a considerable resistance to washing and rinsing. They progressively deliver the active ingredients to the hair stem cuticle, penetrating up to the cortex of the hair medulla, particularly when treating damaged hair.



CUSTOMISED PROJECTS

At INdermal, we are happy to place our processes, knowledge and collaboration at your entire disposal in order to provide you with an accessible and speedy nanobiotechnological service, as if it were an extension of your own R+D department. We also offer you any nanoencapsulation system that you may require for your formulations. We would be delighted to receive your ideas or proposals as well as carry out a preliminary analysis free of charge and in complete confidence.











