



NATURA-TEC MARINE SEADEW EPS **A revolutionary super hydrating agent**

PROPERTIES

NATURA-TEC MARINE SEADEW EPS is an advanced and highly effective active ingredient obtained from our Biotechnology Center via sustainable sophisticated cultivation and extraction techniques.

A fascinating red species from the Mediterranean Sea, the *Porphyridium* sp. is a potential source for several molecules like fatty acids, lipids, cell-wall polysaccharides and pigments. The red color is given by a water-soluble pigment with fluorescent properties: the B-Phycoerythrin. The polysaccharides of this species are sulphated, and their structure gives rise to some unique super properties.

Under controlled conditions, the microalgae species produces in excess the polysaccharides up to the point to be expelled out of the cell in the culture medium.

These EXOPolysaccharides, also called EPS, are high molecular weight polymers, approximately 6500kDa, mainly composed of sugars (galactose, xylose, glucuronic acid and glucose).

These are macromolecules with low penetration into the skin, excellent water binding capacity and non-sensitivity to hyaluronidase enzyme, which enzyme is involved in the degradation of key substrates in the ageing process of the skin.

Highly concentrated, our **NATURA-TEC MARINE SEADEW EPS** is efficient in conditioning the skin, assisting in binding water, reducing TEWL and bringing an immediate increase of skin hydration.

In vitro evaluations show a protective effect regarding oxidative stress as well as a collagen production stimulation. When human keratinocytes are exposed to UVA stress, **NATURA-TEC MARINE SEADEW EPS** at 2.5% reduces the ROS production by 24%. On human fibroblasts, compared to the untreated control, **NATURA-TEC MARINE SEADEW EPS** at 0,15% significantly increases the collagen synthesis by 10,1% after 48h, demonstrating a regulation of the fibroblast activity.

In-vivo tested, **NATURA-TEC MARINE SEADEW EPS** has been demonstrated safe for all skin type including sensitive skin.

On volunteers, after a controlled irritation induction that increases the TEWL and the redness of the skin, **NATURA-TEC MARINE SEADEW EPS** helps to repair the skin immediately by reducing the TEWL and the redness by 17% after 30' and 25% after 1h00 for both criteria. **NATURA-TEC MARINE SEADEW EPS** shows a significant and rapid soothing and calming activity.

When compared to hyaluronic acid (HA) of a similar molecular weight, at 2% in a formulation, **NATURA-TEC MARINE SEADEW EPS** improves immediately the hydration rate (+10% in 30' and up to 27% after 8h) while the HA needs a longer time 2h to observe a significant increase of moisturization. After 8 hours are observed the same hydration profile with a trend in favour of **NATURA-TEC MARINE SEADEW EPS**.

This active provides a body of evidence to protect skin from premature ageing and delay the first signs of ageing while acting as a super hydrating agent, to ultimately help skin stay younger for longer.

COSMETIC APPLICATIONS

Advise for use: 0,5% - 3% in skin care and make up applications.
Applications: Skincare Anti-ageing, anti-wrinkle treatments (skin densifier, collagen booster, skin elasticity enhancer), lightening activity, day and night creams

TECHNICAL DATA

Appearance: Viscous translucent hydro-gel
INCI: Porphyridium Cruentum Extract