



CHOOSE THE FAST LANE TO SUPERIOR SKIN TIGHTENING

Sagging skin is often a result of oxidative stress. Stress factors can initiate the premature signs of ageing, leading to a degradation of the connective tissue. The amount of intact collagen fibers is subsequently reduced as their physical state worsens. It is possible to combat these signs of skin ageing by the use of suitable skin care products. PEPHA®-TIGHT forms a thin film on the skin, exerting an instant perceptible tightening effect.

At the same time it has a long-term firming effect when applied regularly, as part of a treatment regimen: PEPHA®-TIGHT acts as a protection shield against oxidative stress and stimulates the formation of collagen I, which is an essential part of the skin's connective tissue.

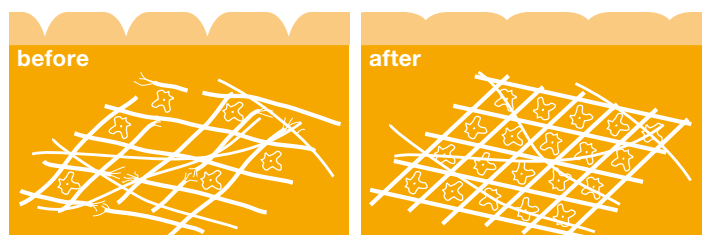
PEPHA®-TIGHT is a highly purified biotechnologically produced extract from the microalga *Nannochloropsis oculata* combined with a well-balanced fraction of polysaccharides.

A special fermentation technology and optimal growth conditions ensure the high quality and pureness of the algae extract. In photobioreactors, *Nannochloropsis oculata* is optimally provided with light and CO₂, the essential nutrients the alga needs to survive. By means of this equipment, both the cultivation process and the algae cell culture are very good to standardize. This leads to an extremely high content and a consistent quality of active ingredients.

Properties

PEPHA®-TIGHT tightens the skin immediately and has in parallel a long-term effect strengthening the skin's connective tissue.

Loose skin is often a result of oxidative stress and damaged collagen fibers. As shown in *in vitro* assays PEPHA®-TIGHT protects skin cells from oxidative stress and increases simultaneously the formation of collagen I.



Function

3 in 1: PEPHA®-TIGHT works with short-, middle- and long-term effects:

- 1. Instantaneous:** PEPHA®-TIGHT has a noticeable instant tightening effect and smoothes fine wrinkles
- 2. Prevention:** PEPHA®-TIGHT acts preventively as a protection shield against oxidative stress
- 3. Restoration:** PEPHA®-TIGHT strengthens the connective tissue by increasing the formation of collagen I

Cosmetic application

- all kinds of tightening gels, lotions, serums
- masks
- lifting products
- décolleté treatments

Formulation

PEPHA®-TIGHT is a yellowish to amber, viscous liquid. It should be incorporated at the end of the formulation process (<50°C). PEPHA®-TIGHT is stable in the pH range of 5 to 7. PEPHA®-TIGHT is compatible with ethanol in concentrations up to 10%.

Suggested concentration

1–5% PEPHA®-TIGHT

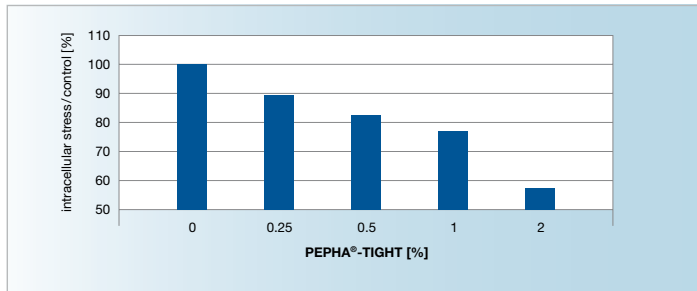
INCI name

Algae Extract, Pullulan

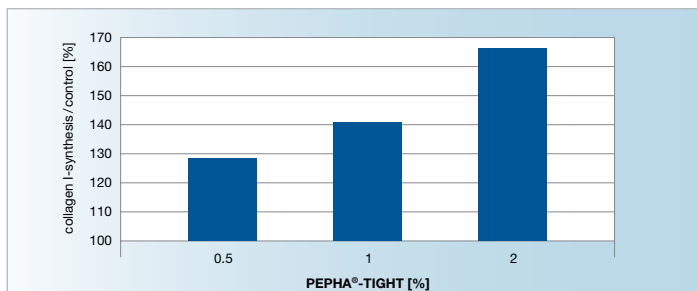
EFFICACY TESTS

In vitro

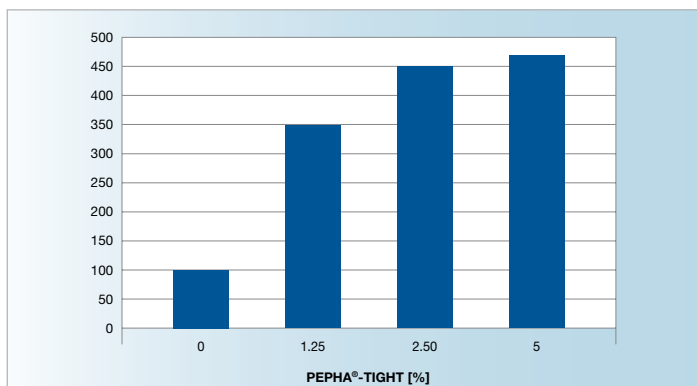
1. PEPHA®-TIGHT protects human fibroblasts from oxidative stress provoked by hydrogen peroxide.



2. PEPHA®-TIGHT stimulates the formation of collagen I in human fibroblasts.

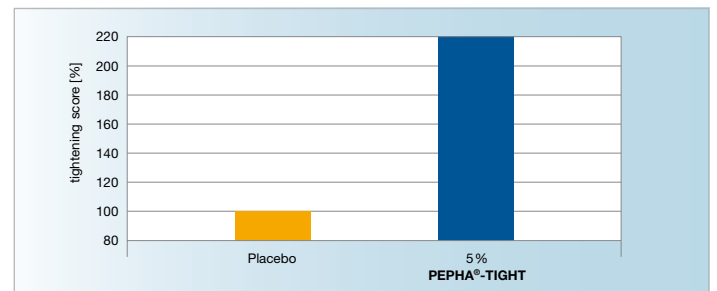


3. PEPHA®-TIGHT stimulates the proliferation of human skin fibroblasts *in vitro*.

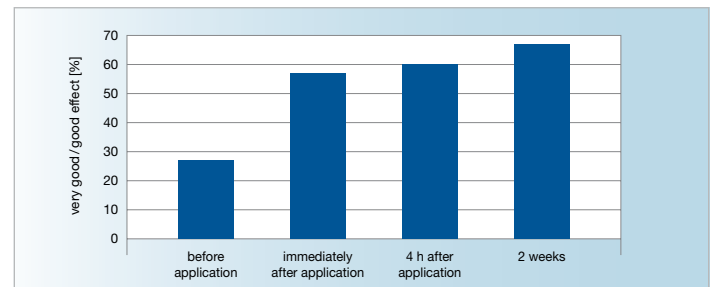


In vivo

1. The immediate efficacy of PEPHA®-TIGHT was evaluated *in vivo* with 20 volunteers applying a test gel containing 5% PEPHA®-TIGHT.



2. The efficacy of PEPHA®-TIGHT was performed in an *in vivo* study with 30 volunteers applying a test gel containing 3% PEPHA®-TIGHT during 2 weeks. The figure shows the statements of the panellists reporting a very good/good tightening effect:



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