

Summary of Scientific Evidence

Natural Algae Massage Gel ExtraClean

MedSkin
Solutions

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Agenda

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At a Glance - Natural Algae Massage Gel ExtraClean

- Natural Algae Massage Gel is a freeze-dried massage gel for detox & skin refining, originating from marine brown algae. The texture is very light, is very easy to spread, leaving the skin feeling soft and clarified with no sticky effect. The patches are activated by moistening, whereupon undesirable deposits on the skin could be bound to the algae fibers.



Key Facts

- Active Biomaterial- - Natural Biomatrix extracted from pure brown algae
- Actives: Alginate
- pH: 6.0-6.3
- Professional usage
- rinse-off product
- Free from PEG/PPG, preservatives, fragrances, mineral oils, silicones & colorants

It's All About the Skin

Introduction

The refinement and smoothing of the skin is a major concern of consumers, regardless of their age. The reduction in pore size and amount of deposits plays an important role in skin refining. The pore size correlates with the activity of the sebaceous glands. The more sebum the glands produce, the further the pores expand. In addition, the use of over-fat creams or oils promotes the expansion of the pore lumen and development of impurities. Increasing environmental impact (indoor and outdoor smog) additionally increases the need for clarification and detoxification of the skin. The most common causes of outdoor air pollution are emissions caused by combustion processes of automobiles, solid fuel combustion and industry. Other sources of pollution include smoke from bush fires, wind-borne dust and biogenic emissions from plants (pollen and mold spores).

Pollutants enter the skin via the epidermal barrier and through the pores, where they induce free radicals. This leads to micro-inflammation, premature aging and intensifies hyperpigmentation of the skin. The binding of substances involved in or triggering this oxidative process is an important cosmetic concern.

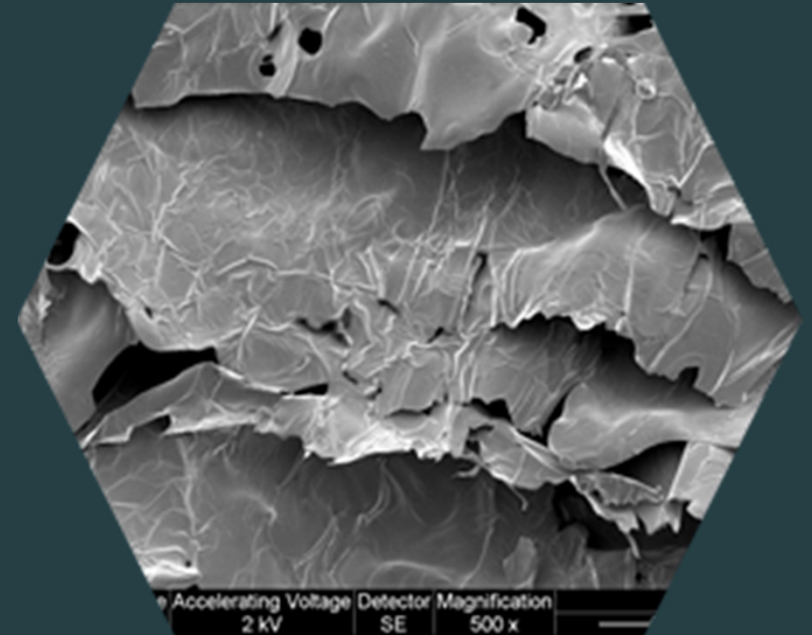
Tobin, Introduction to Skin Aging. J Tissue Viability. 2017;26(1):37-46.

Ingredients Explained in Short

Ingredient	Function in cosmetic products	What that means
Aqua	Solvent	
Rayon	Binder	viscosity regulating
Algin	Humectant	preserves skin moisture
Cellulose Gum	Binder	hold together the ingredients
Calcium Alginate	Humectant	preserves skin moisture
Mannitol	Humectant	preserves skin moisture
Tricaprylin	Emollient	makes the skin smooth and soft
Caprylic/Capric Triglyceride	Occlusive	protects the skin from moisture loss

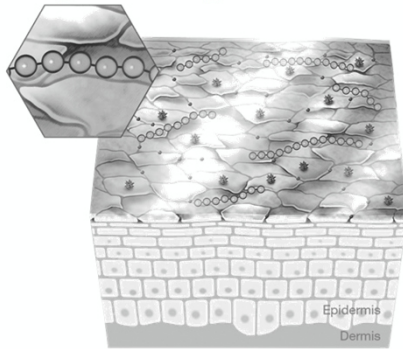
Hero Active Ingredient

- Alginate hydrogels are three-dimensionally cross-linked networks composed of hydrophilic polymers with high water content. Alginate is present in the cell walls of brown algae, e.g. as the calcium salts of alginic acid (Calcium Alginate). The alginate can absorb more than several hundred times its own weight in water, and therefore the dry patches of Natural Algae Massage Gel ExtraClean transform into a gelatin-like massage product by moistening. During massage, the highly skin-compatible alginate gel releases moisture to the skin whereby the epidermal barrier is strengthened. The skin is well moistened and smoothed. The massage application stimulates and revitalizes the skin, making it appear fresher with more luminosity.
- In parallel, Natural Algae Massage Gel Extra Clean has an effect on the major causes involved in the appearance of dilated pores and polluted skin. Marine algae are known for their richness in photoprotective substances which can be used as a protection against ROS (Reactive Oxygen Species) caused by pollutants. By massaging the skin, loosely attached corneocytes, dirt particles and excess sebum are released from the skin and adhere to the alginate gel. It also binds environmental pollutants that have accumulated on the skin. This helps to tighten pores, clarifies and detoxifies the skin.



Mode of Action

1 Activation & Application of Natural Algae Massage Gel



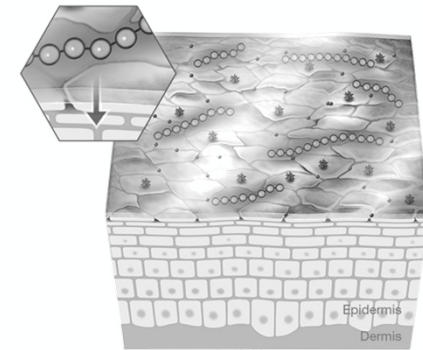
- Fresh activation with water / Activation Liquid 17SF, transformation into hydro massage gel (highly viscous).
- Release of Natural Algae Complex (marine polysaccharides) onto skin surface.
- High water binding capacities for long-lasting lubricating characteristics.

2 Beginning of Treatment Massage



- Manual circular massage movements to enhance detoxification effect.
- Detachment of corneocytes.

3 Hydration, Skin Barrier Restoration & Protection



- Marine polysaccharides form a moisture binding layer on skin surface ensuring optimal conditions for water transfer into the skin.*
- 1st Benefits:**
- Reduces Transepidermal Water Loss (TEWL).
 - Deeply hydrates skin.
 - Smooths lines & wrinkles.



Marine Polysaccharides



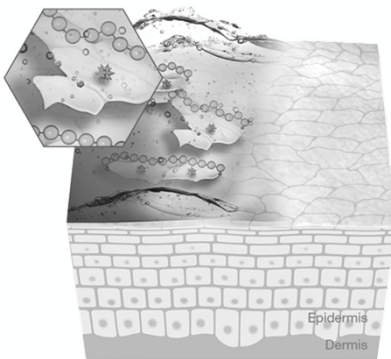
Corneocytes



Environmental toxins on Corneocytes

Mode of Action

4 Binding of pollutants



- Environmental toxins are bound.
- Gel texture supports attachment of bacteria.
- Removal of environmental toxins and bacteria by rinse off.

2nd Benefits:

- Detoxifies skin.
- Purifies skin.

5 Removal of detached cells



- Gel texture supports attachment of dead corneocytes.
- Removal of detached corneocytes by rinse off.

3rd Benefits:

- Refines skin.
- Refreshes skin.
- Smoothes skin.

6 Significant Detox & Skin Refining Results



Summary of benefits

- Refined skin.
- Detoxified and purified skin.
- Re-balanced skin and restored skin barrier.
- Smoothed lines & wrinkles.
- Deeply hydrated skin.
- Revitalized skin, healthy skin tone / glow.



Scientific and Clinical Studies

Studies performed:



ex vitro analysis: SEM for Skin Calming and Cleansing



Dermatological Evaluations



Patch Test

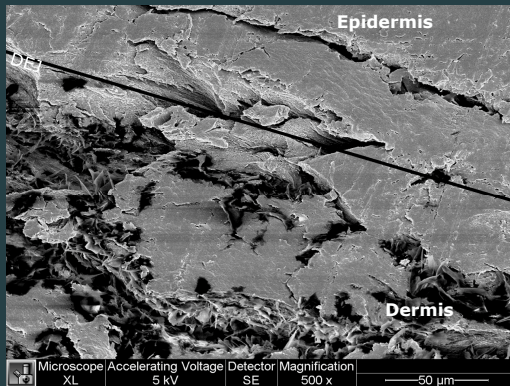
Proven Cleaning and Calming Effect



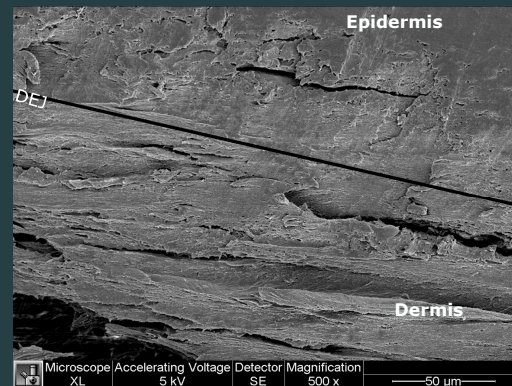
Skin before Natural Algae Massage Gel treatment

Skin after Natural Algae Massage Gel treatment

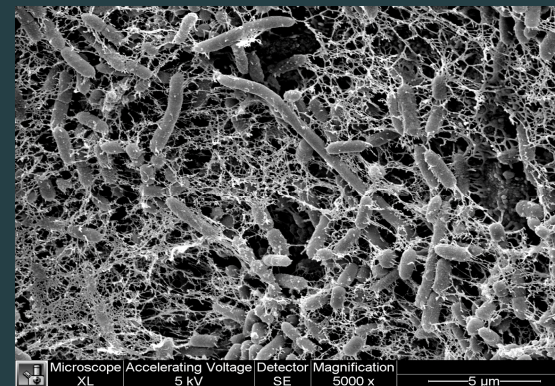
Natural Algae Massage Gel after treatment



Irritated and rough skin without Natural Algae Massage Gel



Smoothed and calmed skin with Natural Algae Massage Gel



Gel after application: adhered bacteria, sebum and loose cells

What that means:

- Smoothed, calmed and detoxified skin

DEJ: Dermal Epidermal Junction



Controlled Dermatological Study



- Study title: EVALUATION OF THE EFFICACY OF A COSMETIC PRDODUCT - NATURAL ALGAE MASSAGE GEL PEG/ PPG FREE
- Study centre: Zurko Research, Madrid, 2021
- Parameter: Determination of:



skin moisture
Corneometer

Skin pH
pH Meter



TEWL
Tewameter

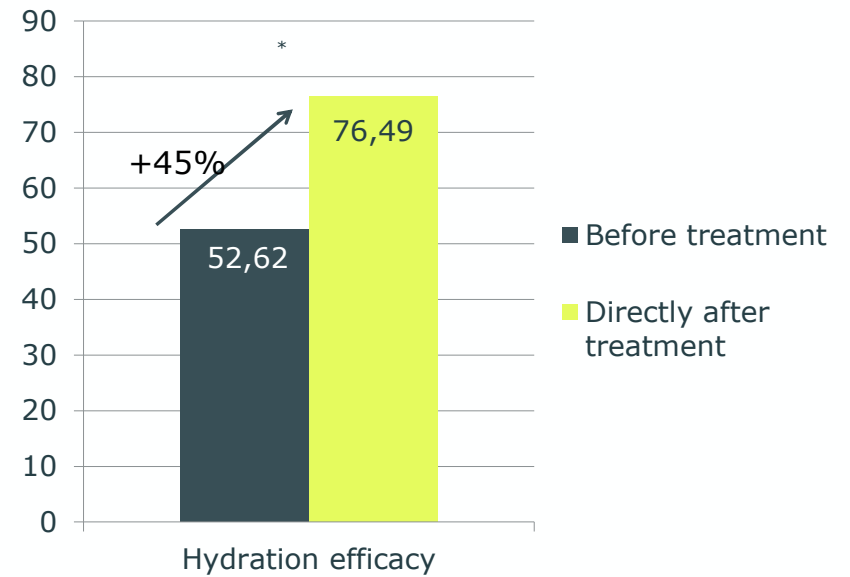


User Satisfaction
Questionnaire

Increased Skin Hydration

- Method:
 - Corneometer (skin hydration)
- Results:
- Immediately compared to before treatment: +45%
- What that means:
- Immediate skin hydration

Skin Hydration
Corneometer



Immediate and significant increase in hydration after treatment with NAMG Pure. $p < 0.05$

Skin Barrier Function

Method:

- Tewameter

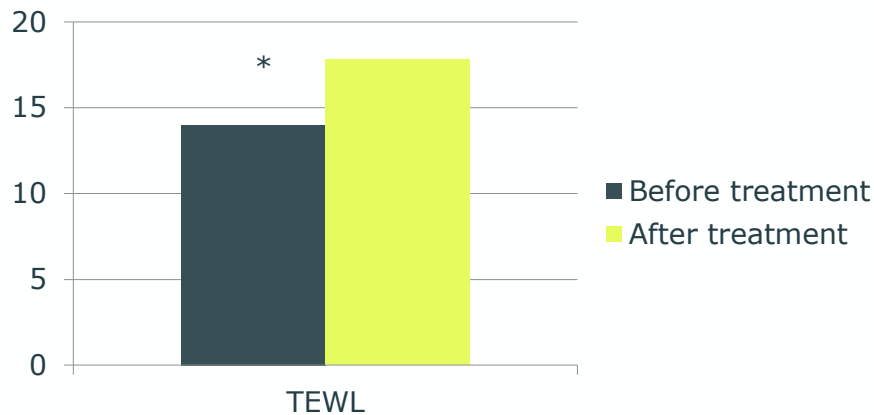
Results:

- Immediate after treatment: increase in TEWL by 27%
- After 14 days: significant reduction in TEWL by 14%

What is means:

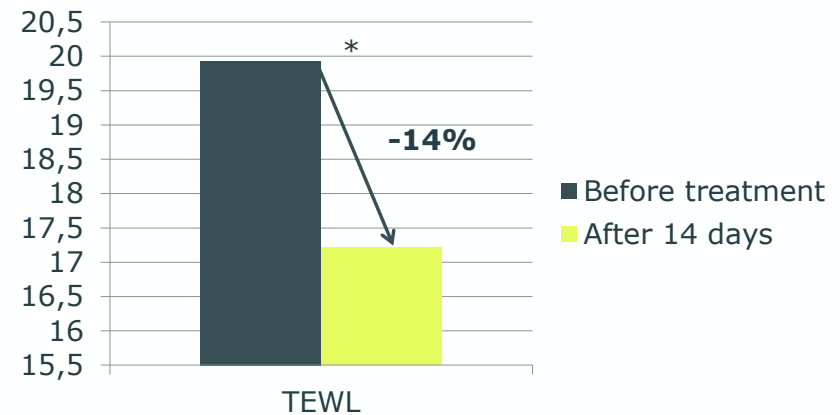
- Opens Skin Barrier to optimize further treatment, and improves Skin Barrier Function over time

Immediately after treatment



n=20, p=0.048

After 14 days



n=21, p=0.01

Two different sets of patients enrolled.

Reduction in Skin pH Value

- Method:

 - pH-meter

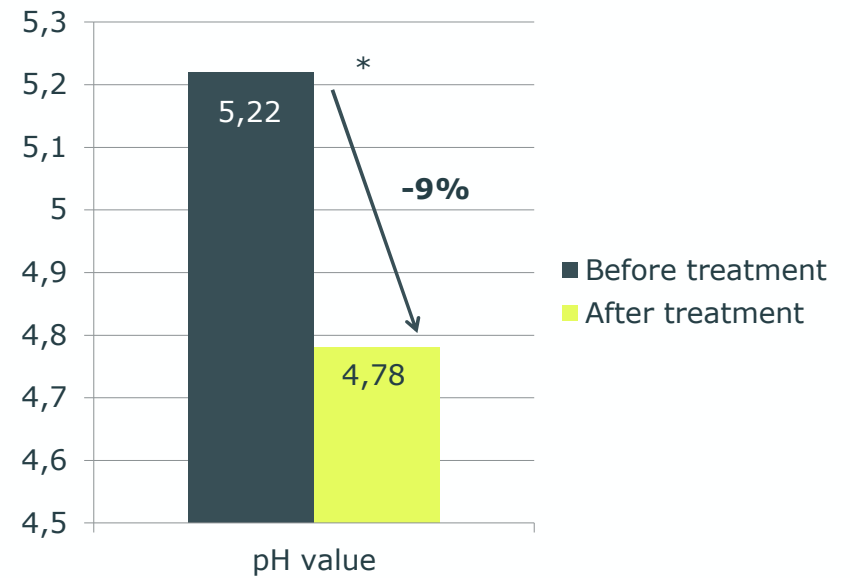
- Results:

 - Immediate reduction in skin pH value: -9%

- What that means:

 - Skin able to uptake further treatments

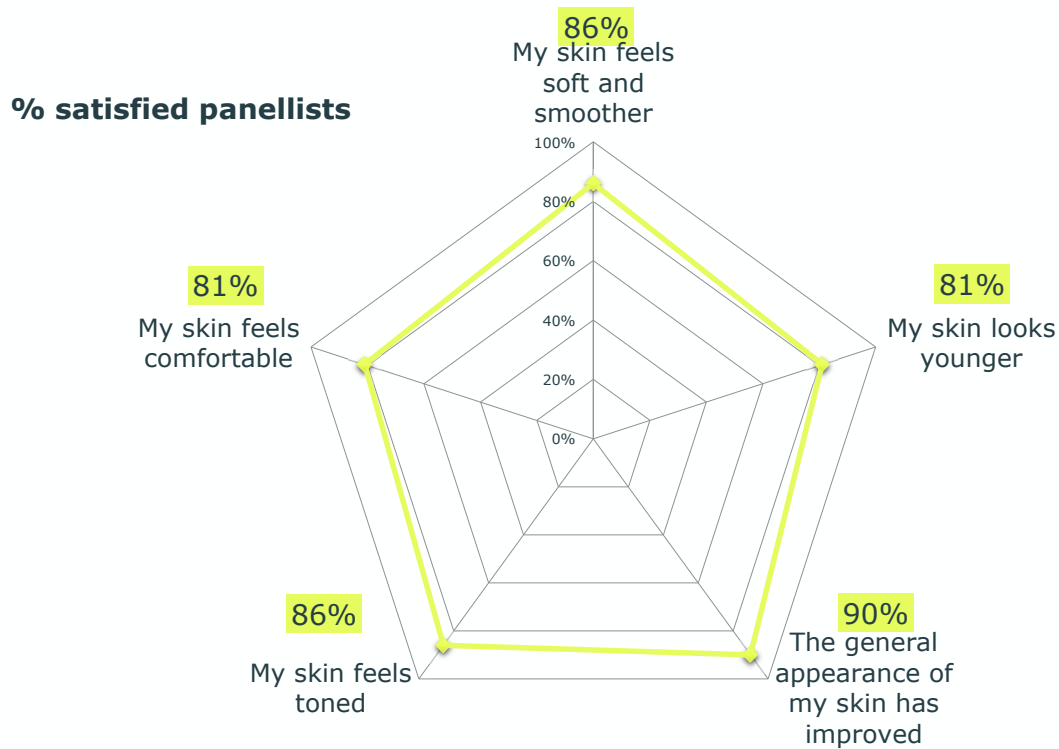
Skin pH value
Immediately after treatment



Significant reduction in skin pH value immediately after treatment. P=0.00

User Satisfaction

Subject Questionnaire indicates high user satisfaction.

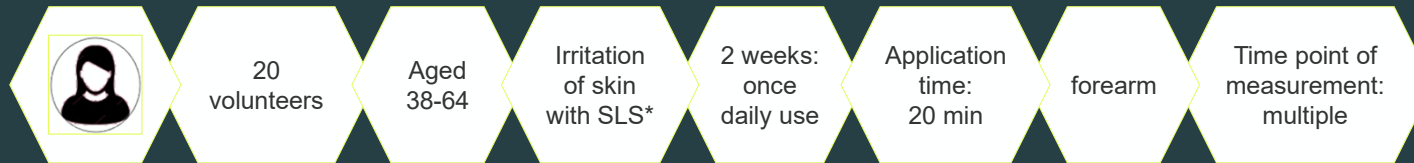


Quotes from study participants:

- "I noticed that the product removes impurities of my face"
- "The product deeply cleanses my skin, but it does not dry out my face"
- "My skin feels more hydrated, toned and smoother"



Controlled Dermatological Study



- Study title: Efficacy study of Natural Algae Massage Gel on impaired skin
- Study centre: Derma Consult GmbH, Germany, 1993
- Parameter: Determination of:



skin moisture
Corneometer



skin roughness
PRIMOS



TEWL
Tewameter

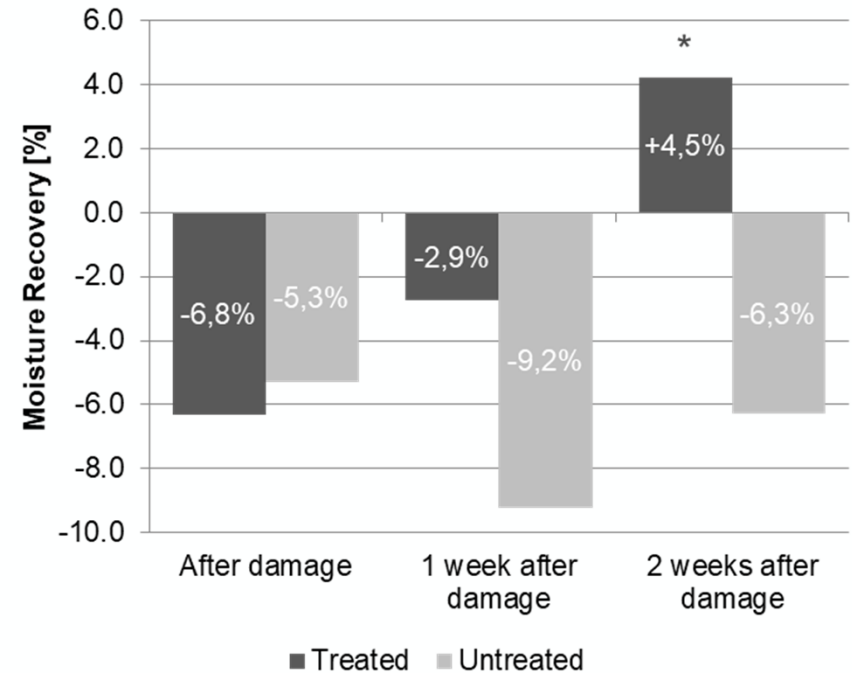
* SLS: sodium lauryl sulfate

Skin Moisture Recovery Effect

- Method:
 - Corneometer (skin hydration)
- Results:
- After damage: decrease of skin hydration
- After 1 week:
 - Natural Algae Massage Gel: Recovery by 3.9%
 - Untreated area: further decrease by 2.4%
- After 2 weeks:
 - Natural Algae Massage Gel: complete recovery an increase by 4.5%
 - Untreated area: no recovery an decreased skin hydration
- What that means:
 - Complete recovery and increase in skin hydration



Moisture recovery (%)



Moisture recovery of untreated skin and once daily Natural Algae Massage Gel treated skin for 2 weeks after skin damaging. Values were obtained as a percentage difference to T0 (untreated, undamaged skin).

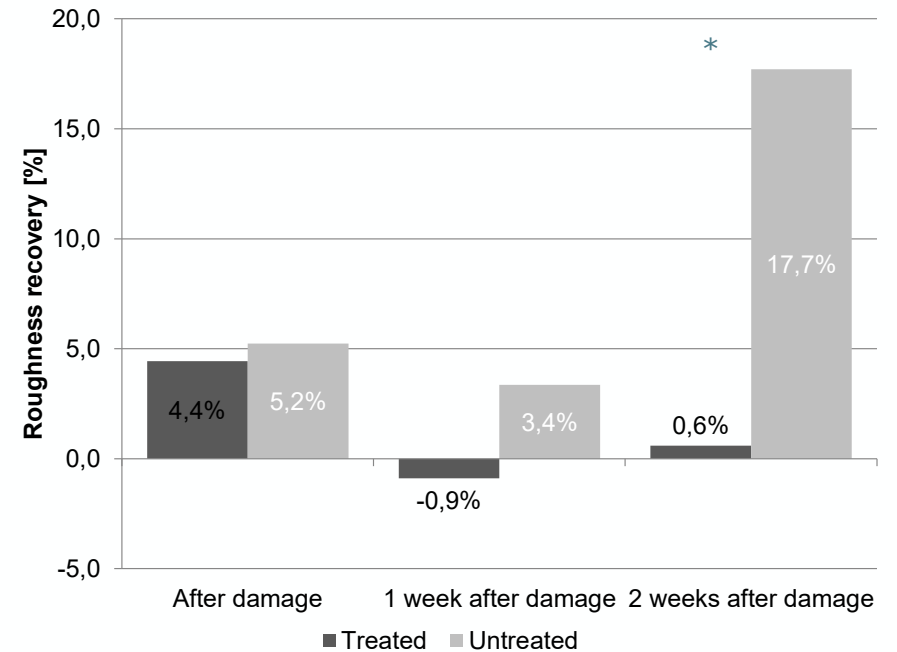
Skin Roughness Recovery Effect

- Method:
 - PRIMOS (skin roughness)
- Results:
- After damage: increase of skin roughness
- After 1 week:
 - Natural Algae Massage Gel: complete recovery
 - Untreated area: no recovery
- After 2 weeks:
 - Natural Algae Massage Gel: complete recovery
 - Untreated area: no recovery an increased skin roughness



- What that means:
 - Complete recovery of skin roughness
 - Skin smoothing and calming effect

Roughness recovery
(%)



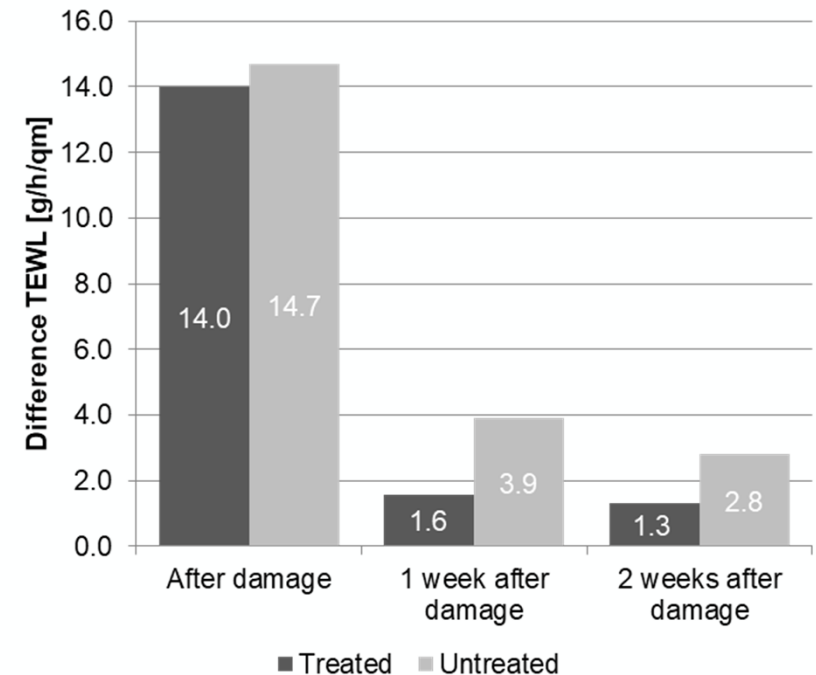
Roughness recovery of untreated skin and once daily Natural Algae Massage Gel treated skin for 2 weeks after skin damaging. Values were obtained as a percentage difference to T0 (untreated, undamaged skin).

Skin Barrier Recovery Effect

- Method:
 - Tewameter (TEWL, skin barrier)
- Results:
- After damage: increase of TEWL (damaged skin barrier)
- After 1 week:
 - Natural Algae Massage Gel: almost complete recovery
 - Untreated area: less recovery
- After 2 weeks:
 - Natural Algae Massage Gel: almost complete recovery
 - Untreated area: less recovery
- What that means:
 - Restored skin barrier




Difference in TEWL
g/h/qm



Transepidermal water loss of untreated skin and once daily Natural Algae Massage Gel treated skin for 2 weeks after skin damaging. Values were obtained as a difference to T0 (untreated, undamaged skin).

Patch Test



- Study title: Dermatological report on human Patch Test after single application of Natural Algae Massage Gel with Activating Liquid
- Study centre: Dermatest GmbH, Germany, 2015
- Protocol: Application of the product for 24, 48 and 72 hours under occlusion. Evaluation of the test areas 30 min after completion of the occlusion.
- Result:  None of the subject showed any reaction to the test product. It can be concluded that the use of the product will not cause any unwanted skin reactions due to an irritating effect.

Summary

