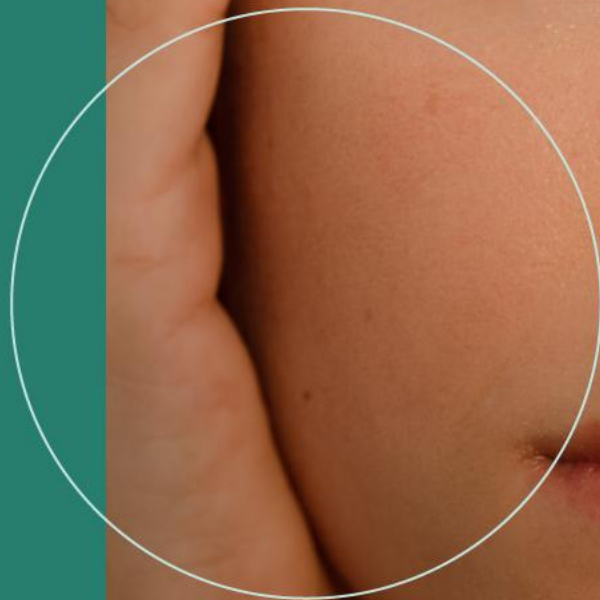


STIMU-TEX®

*Immediate relief for
sensitive & irritated skin*

AS



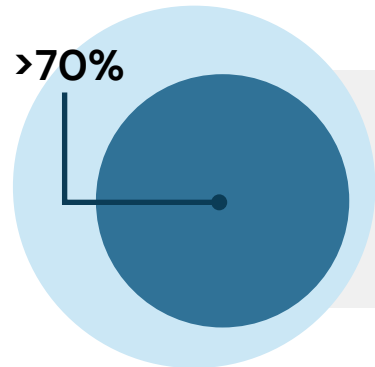
April 2026

Naturals | The science of nature

dsm-firmenich 

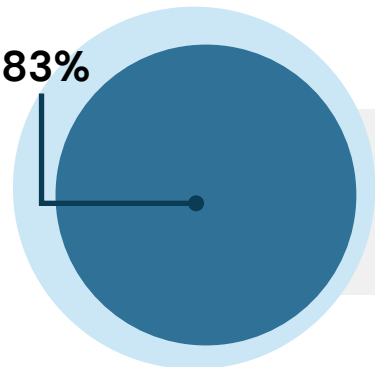
A high percentage of consumers have self-declared sensitive skin

>70%



>70% of global consumers say they have experienced signs of sensitivity, like **redness**, **dryness**, or **stinging** / **burning** / **itching** on their facial skin

83%



of consumers are actively looking for skin care **products** that are **created for sensitive skin**

I Chen W, Dai R, Li L. The prevalence of self-declared sensitive skin: J Eur Acad Dermatol Venereol. 2020, 34 (8)

II <https://www.glossy.co/beauty/why-every-brand-is-launching-sensitive-skin-products/>



STIMU-TEX® AS

ID Card

INCI NAME: Spent Grain Wax, Argania Spinosa (Argan) Kernel Oil, Butyrospermum Parkii (Shea Butter) Extract, Tocopherol

TECHNOLOGY: A unique mixture of premium, upcycled spent grain wax a by-product of the beer production, cold-processed argan oil, and shea butter.
100% of natural origin

TECHNICAL: Form: Off-white to yellowish lipidic mass Use level: 1–5%
Preservative: Free Solubility: Oil soluble

BENEFITS:

- Significantly decreases the expression of IL-1α, a marker for inflammatory reactions**
- Helps to reduce itch mediators such as histamine*
- Effectively reduces histamine-related symptoms like itching and redness, while significantly enhancing skin comfort within 5 minutes***

REGISTRATION
CERTIFICATION



The rise of upcycled beauty

Consumers around the world are increasingly looking for authentic products with scientifically proven efficacy.

Upcycled ingredients for use in our modern world is proving popular among those who want to nourish their skin for a naturally flawless look.

What is upcycling?

It transforms by-products and waste materials into something new and exciting – something that consumers want to use and find great joy from.

STIMU-TEX® AS is enriched with upcycled spent grain wax



Brewers have always had smooth, soft hands

- For generations, **beer brewers have recognized the soothing properties of spent grain**, traditionally associated with calming skin and relieving itching.

But what exactly is brewer's spent grain?

- Brewer's spent grain is the most abundant **by-product of the beer-brewing process**, accounting for around 85% of all brewing by-products.
- It is the **natural residue** left after pure barley (*Hordeum vulgare*) is transformed into malt through successive physical and fermentative processing steps.



Pure Spent Grain Wax — From Brewery By-Product to High Value Skin Soother

- **Rooted in the German brewing tradition**, Pure Spent Grain Wax is upcycled from brewer's spent grain left after beer production.
- **Using gentle supercritical CO₂ extraction**, it is transformed into a pure, **golden wax** that:
 - Avoids harsh solvents
 - Preserves skin-soothing lipids
 - Delivers a soft, skin-loving texture
- **Unique upcycled origin**

Role in STIMU-TEX® AS

- Provides skin-soothing lipids that enhance comfort
- Supports relief from itching and irritation
- Contributes to the soft, caring sensory profile of the blend

A fusion of heritage and green innovation, turning an overlooked by-product into a comforting, sustainable skin ingredient.

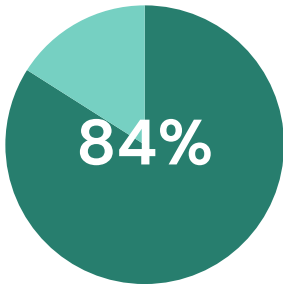


Spent grain wax delivers strong relief on skin with atopic conditions

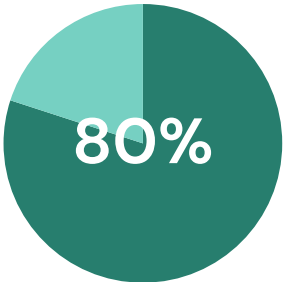
Dermatological study performed on skin with atopic conditions*

100 volunteers, 1% and 5% spent grain wax used in a w/o emulsion; placebo, half-face blind application of verum & placebo; twice daily, 1-4 weeks

Result: strong and perceivable itching alleviation



Preferred formula



Better anti-itching effect

Spent grain wax | Placebo

** Source: Entwicklung und Prüfung eines neuen dermatologisch-kosmetischen Wirkstoffes aus Gerstentreber (development and testing of a new dermatological-cosmetic active ingredient from barley grains), H. Tronnier, P. Haas and L. Motitschke, Ärztliche Kosmetologie 17, 342-352 (1987)



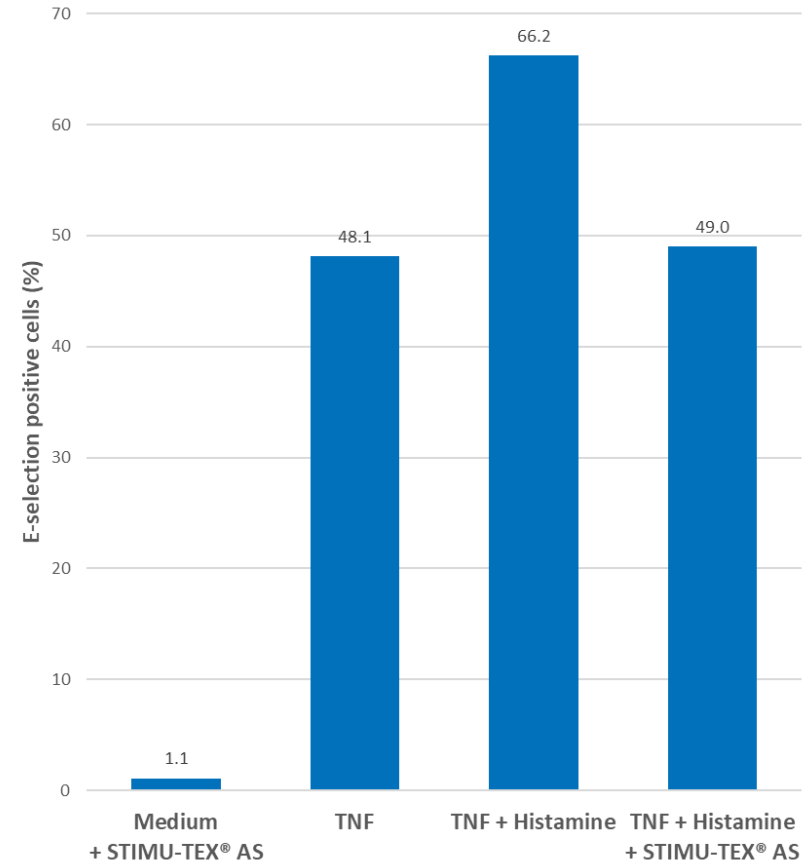
STIMU-TEX® AS

Strong histamine rebalancing capacity in vitro

Histamine effect blocking assay

- Histamine is a marker for allergic reactions. Histamine blocking products inhibit the symptoms of allergy such as itching, swelling, and red skin.
- An in vitro assay with human endothelial cells was developed to quantify histamine effects: Histamine combined with TNF (Tissue Necrosis Factor) enhances the induction of E-selectin on endothelial cells. E-selectin induction is the starting point of an inflammatory reaction.

STIMU-TEX® AS nearly completely rebalances E-selectin expression on endothelial cells, a downstream target of histamine*.



*in vitro

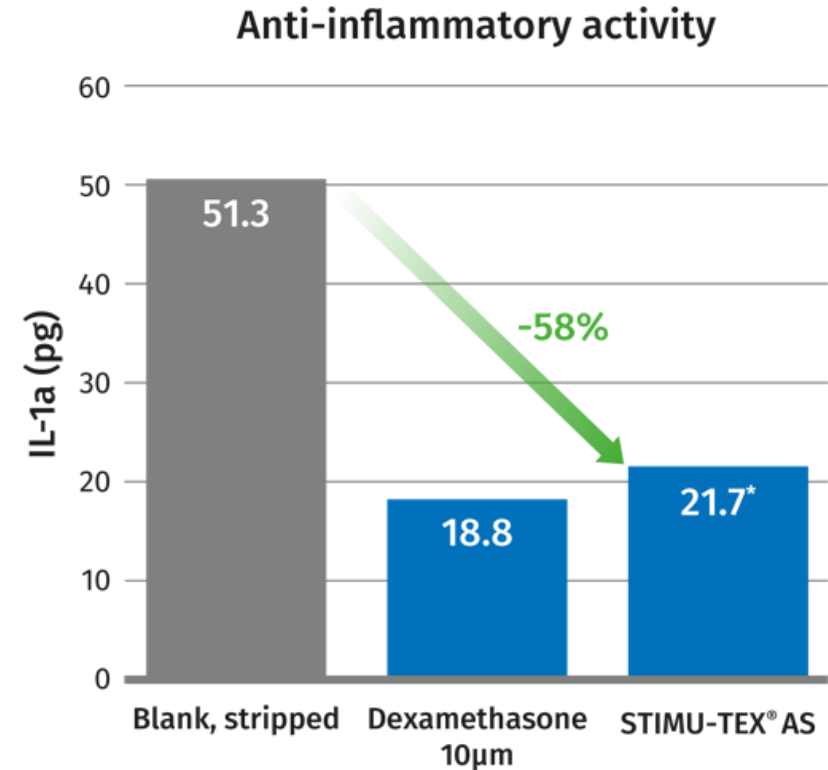
STIMU-TEX® AS

Strong reducing of skin reddening ex vivo

Anti-inflammatory assay ex vivo

- Determination of the inflammation marker interleukin-1 α , released in the supernatants of stripped human skin disks.
- A human skin fragment was taken after abdominal plastic surgery and stripped 10 times. STIMU-TEX® AS was tested on the skin surface at a concentration of 1 mg/cm². Dexamethasone is a glucocorticoid, used as positive control.

STIMU-TEX® AS significantly decreases the expression of IL-1 α by 58%, a marker for inflammatory reactions*.



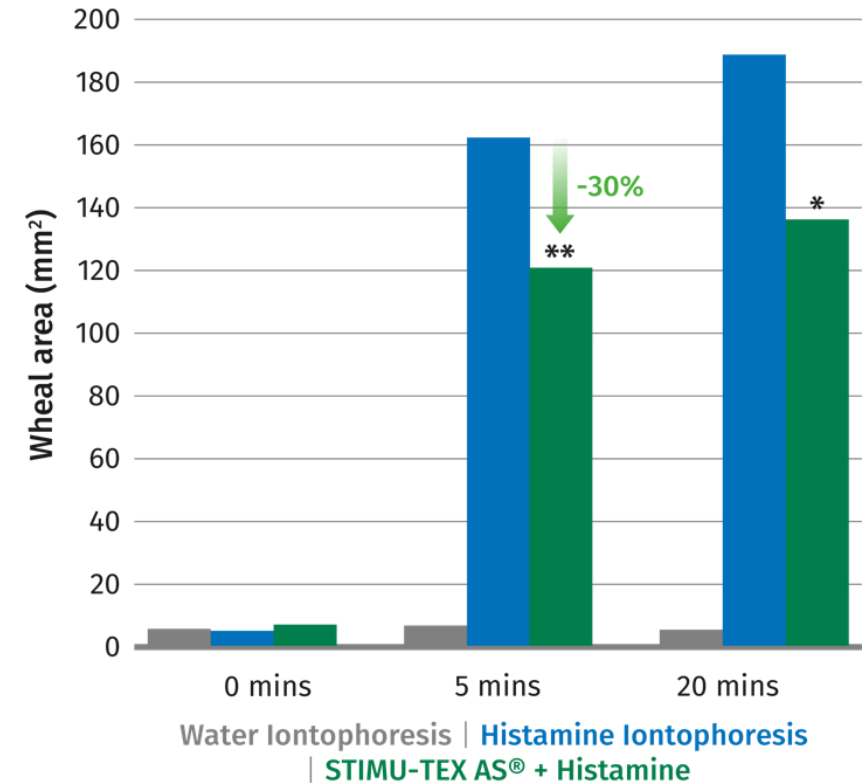
*ex vitro

STIMU-TEX® AS

Immediate relief within 5 minutes in vivo

- The release of histamine induces a vasodilatation, an increase of vascular permeability, inflammation, and skin redness. Laser Doppler flow measurements enable this increased blood flow to be quantified.
- Histamine was applied on the inner forearm of 10 healthy female volunteers between the ages of 18 and 39.
- Penetration of histamine into the skin was stimulated non-invasively by iontophoresis in order to produce a mild reaction.
- Results for distilled water (negative control), histamine alone (positive control), and 5% STIMU-TEX® AS with histamine were compared.
- The reactions were determined non-invasively as perfusion modification by means of a laser Doppler imager and as wheal formation by computerized surface measurement.

STIMU-TEX® AS formulation significantly reduces histamine-related symptoms by 30% after as little as 5 minutes**



**in vivo

STIMU-TEX® AS

Dermatological study on Asian skin with atopic conditions¹

- 29 Asian (Thai) patients (18 male and 11 female), aged between 2–15 years
- 3% STIMU-TEX® AS (S cream) vs 1% Hydrocortisone (HS cream)
- The body was randomly divided to left and right side. One side was applied with S cream and the other side was applied with HC cream twice daily for four weeks.

Visible reduction of Childhood Atopic Dermatitis by a STIMU-TEX® AS (3%) cream after already 2 weeks



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