

Actives

PRODUCT DOSSIER

Azelaic acid-99P

READ MORE

<https://actives.beauticslab.tech>

July 2026

VERSION 1.01

BEAUTICS
LABORATORIES

PRODUCT DATA SHEET (PDS)

CrossLinked HA™

1. Description

CrossLinked HA™ is an advanced crosslinked hyaluronic acid technology designed to deliver intense, immediate and sustained skin hydration while supporting a smoother, more youthful skin appearance. Combining Sodium Hyaluronate with Sodium Hyaluronate Cross-polymer, its crosslinked structure forms a soft hydrogel microparticle network capable of binding large amounts of water and resisting enzymatic degradation. This creates a high-performance hydration reservoir on the skin while also providing a delivery environment that can prolong the release of absorbed cosmetic actives.

2. INCI:

Sodium Hyaluronate and Sodium Hyaluronate Cross polymer

3. Mechanisms Of Action

3.1 Advanced Hydrogel Network

- Crosslinking transforms hyaluronic acid into a soft hydrogel microparticle structure with high water-binding capacity, creating a hydrated environment that supports immediate skin moisturization and improved skin texture.

3.2 Enhanced Polymer Persistence

- The crosslinked network provides greater resistance to hyaluronidases, enzymes responsible for hyaluronic acid degradation, helping maintain the hydration-supporting structure for longer than conventional HA.

3.3 Active Retention & Controlled Release

- CrossLinkedHA™ can interact with absorbed cosmetic actives and create a reservoir within its hydrated network. The reference study using niacinamide demonstrated longer release of the absorbed active compared with water and conventional HA environments.

PRODUCT DATA SHEET (PDS)

4. Pharmaceutical Characterization

Parameter	Characterization
Polymer base	Hyaluronic acid
Starting HA molecular weight	300 kDa
Appearance	White to off-white, free-flowing powder.
Water solubility	Fully soluble in water
Recommended concentration	0.01–0.10%
Safety-test concentration reported	Up to 1%
Shelf life	24 months

5. Role in Cosmetic Formulations

- **Advanced Hydration**

Provides high water-binding capacity and immediate hydration enhancement.

- **Longer-Lasting Hydration**

The crosslinked structure is more resistant to hyaluronidase degradation than conventional HA.

- **Immediate Wrinkle Reduction**

An in-vivo study using 1% CrossLinkedHA in a serum with five volunteers reported an immediate 20% reduction in wrinkle depth after 30 minutes.

- **Rapid Skin Hydration**

An in-vivo study using only 0.01% CrossLinkedHA in an emulsion with eight volunteers reported an immediate hydration increase of 58%.

- **Active Delivery**

The reference study demonstrates prolonged release behavior for absorbed niacinamide compared with water and conventional HA environments.

- **Texture & Elasticity Support**

The technical document identifies improvement of skin elasticity and texture as additional benefits.

PRODUCT DATA SHEET (PDS)

6. Formulation Considerations

Handling

CrossLinkedHA™ is a heat- and pH-sensitive polymer system.

Processing Recommendations

- Avoid unnecessary prolonged heating.
- Avoid extreme pH conditions.
- pH <4 or >10 can lead to polymer decomposition.
- Heat accelerates degradation under extreme pH conditions.

7. Application Formats

Application	Main Pharmaceutical/Cosmetic Output
Hydrating Serum	Immediate wrinkle-depth reduction
Anti-Aging Serum	wrinkle reduction
Moisturizer	Immediate & sustained hydration
Eye-Care Formula	Hydration + wrinkle-care positioning

PRODUCT DATA SHEET (PDS)

8. Clinical Performance

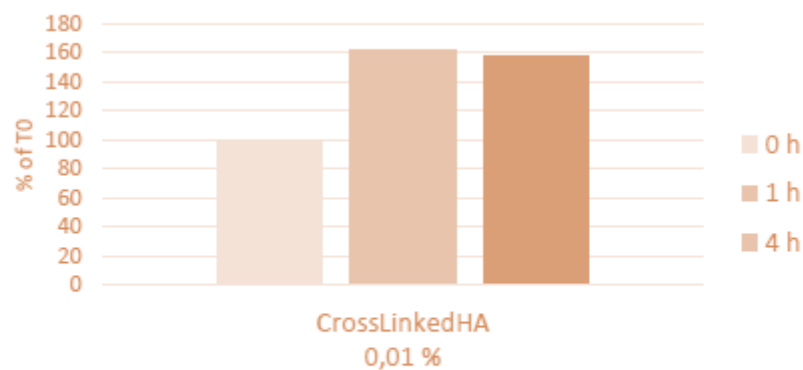
1. Immediate Hydration Enhancement

- Study Objective**

To evaluate the ability of CrossLinkedHA™ to provide rapid and sustained improvement in skin hydration when incorporated into a facial emulsion.

- Test Material & Concentration**

CrossLinkedHA™ at **0.01%** in an emulsion.



CROS (0,01%) in emulsion, face, 8 volunteers.
Hydration determined by CM 825 Corneometer
(Courage and Khazaka electronics)

- Results**

Application of CrossLinkedHA™ produced a pronounced hydration response, with an immediate increase in skin hydration of 58% compared with baseline.

PRODUCT DATA SHEET (PDS)

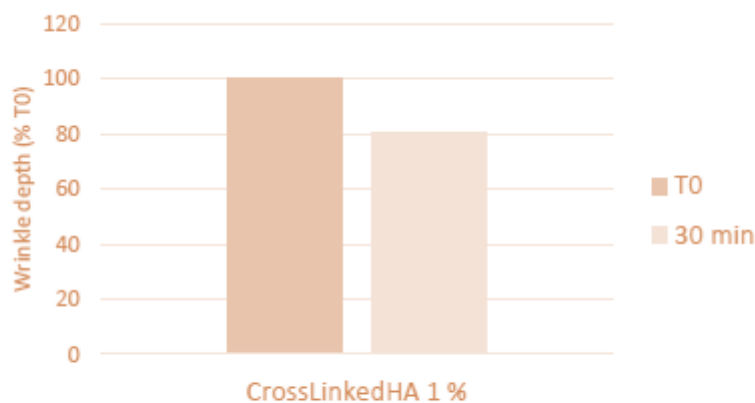
2. Immediate Wrinkle-Depth Reduction

- Study Objective**

To investigate the immediate skin-smoothing and wrinkle-reducing performance of CrossLinkedHA™ when incorporated into a facial serum.

- Test Material & Concentration**

CrossLinkedHA™ at **1%** in a serum.



CROS (1%) in serum, crow's feet area, 5 volunteers.
Wrinkles depth determined by Primos camera

- Results**

The study reported an immediate 20% reduction in wrinkle depth after 30 minutes.

PRODUCT DATA SHEET (PDS)

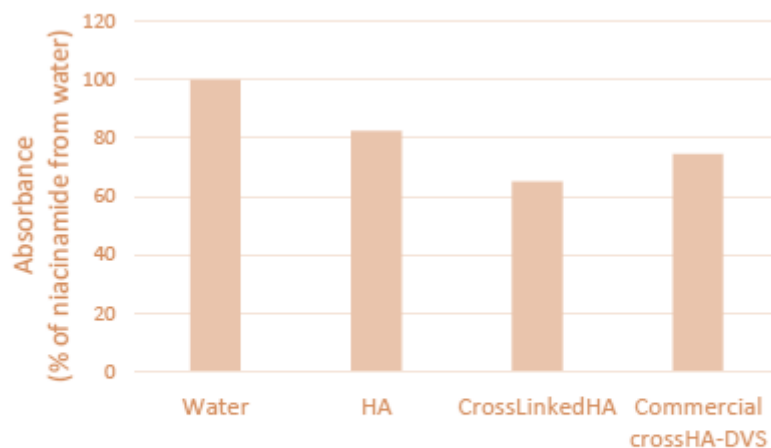
3. Active Delivery & Release Study

- Study Objective**

To investigate the ability of CrossLinkedHA™ to influence the release behavior of an incorporated cosmetic active compared with conventional aqueous and HA-based environments.

- Model Active**

Niacinamide



Niacinamide in different environments: with water/HA/CROS/commercial crosslinked HA, dialysis chambre, release after 2 h determined by measuring the absorbance.

- Results**

The study demonstrated longer release of the absorbed active in the CrossLinkedHA™ system, supporting its potential to function not only as a hydration technology but also as an active-retention and delivery platform.

Actives

CONTACT US

✉ info@beauticslab.tech

🌐 <https://actives.beauticslab.tech>

☎ **Tel: +201069529529**