

Active Beauty
Spherulite™ HA Ultimate
Microencapsulated HMW HA
lip volumiser

Crafted by vectorisation technology



Givaudan

Focus on the product

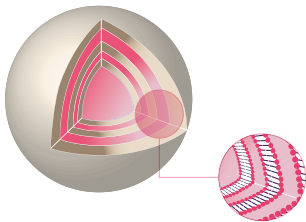
Topical Hyaluronic acid – hype or proven efficacy?

Dermal fillers, an injectable treatment performed in a doctor's office, can help smooth lines and replenish lost volume, **restoring a more youthful appearance**. The most common compound used in dermal fillers is hyaluronic acid (HA). HA is a naturally occurring substance found in our skin capable of binding over one thousand times its weight in water. So it plays a major role in keeping skin hydrated and plumped.

Topical HA (especially the pure one) has many positive attributes: it is generally well tolerated; it does not cause allergic reactions or irritate sensitive skin; and it is safe to use on the skin during pregnancy and while breastfeeding. Moreover, some alternative skincare treatments and beauty tools can provide a noticeable effect with continuous use.

Hyaluronic acid comes in different molecular sizes. Larger HA molecules, despite being the best at binding water and offering hydration, cannot penetrate into the skin. When applied topically, these molecules sit on top of the skin, offering hydration only at the very surface. Recent cosmetic innovations combine HA in different molecular weights to reach different skin levels. There is also a growing number of encapsulated HA products showing increased bioavailability in topical applications. However, **there are not yet many solutions when it comes to the delivery of high molecular weight HA to the deeper skin layers**.

Spherulite™ HA Ultimate: vectorised HMW HA

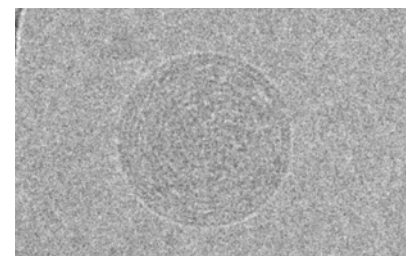


The **advanced microencapsulation technology of Spherulite™** allows the vectorisation of high molecular weight (HMW) HA in the multi-layered crystalline microcapsules. The non-ionic nature of the capsule enables its better penetration into the upper layers of the skin where the pure HA is slowly released at the target activity site for a long lasting effect.

The new chassis of the Spherulite™ HA Ultimate demonstrates high naturality, contains **upcycled natural vitamin E** and **no preservatives**.

The **Cryo-TEM analysis** has revealed that the average size of the capsule is about 142 nm and it consists of 20 bilayers.

Cryo-TEM (Transmission Electron Microscopy)



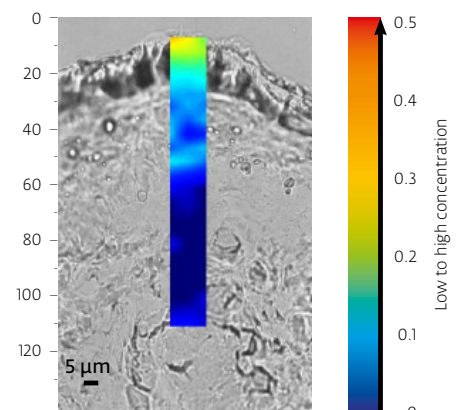
100 nm

Skin penetration: Raman spectroscopy

The study is performed on an explant of a 54-year-old woman. Spherulite™ HA Ultimate is applied to the surface of the explants and maintained in survival conditions by culture at 37°C for 8 h. Following incubation, the explants are frozen to -80°C and are subsequently cut lengthways.

Presence of the specific markers of Spherulite™ HA Ultimate is measured by Raman micro imaging and analysed by "Fitting" on the region between 0 and 120 µm (under the skin surface).

Results: Spherulite™ HA Ultimate **penetrates the stratum corneum and the epidermis up to 50 µm**.



Efficacy

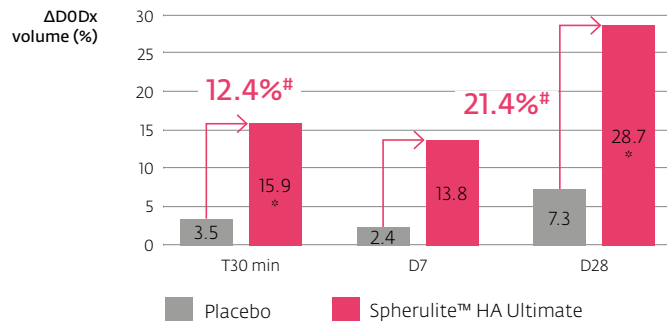
Plumping and smoothing effect on lips using Dermatop® (clinical test)

To evaluate the benefits of Spherulite™ HA Ultimate in lip care applications, a clinical test was conducted in a double blind versus placebo. This study was carried out on 31 women from 55 to 65 years old selected for their thin lower lip and for having fine lines on the upper lips.

2 groups of volunteers were formed (14 volunteers maximum for active and 17 volunteers maximum for placebo). Panelists applied a light emulsion with or without 3% of Spherulite™ HA Ultimate twice a day (morning and evening) for 28 days on lip area. The lips volume was measured on lower lips by Dermatop® before and 30 minutes after the application as well as on day 7 and 28. The smoothness effect was analysed on upper lips after 28 days by studying the roughness with Ra parameter (Ra= Average roughness) using Dermatop®. A decrease of Ra parameter leads to a decrease in roughness which induces a smoothing effect on the lips.

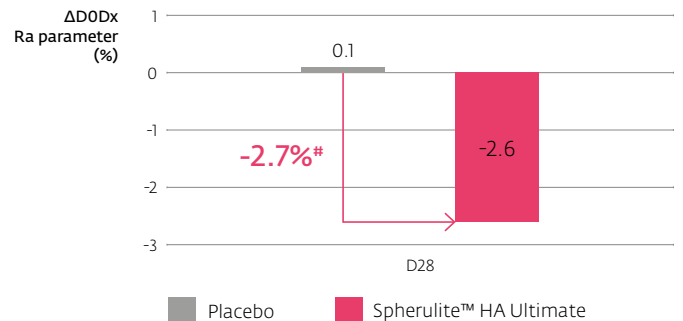
1. Plumping effect

Spherulite™ HA Ultimate showed a **significant lip volume increase** with improvement of 12.4% after 30 min and of 21.4% after 28 days in comparison with placebo.



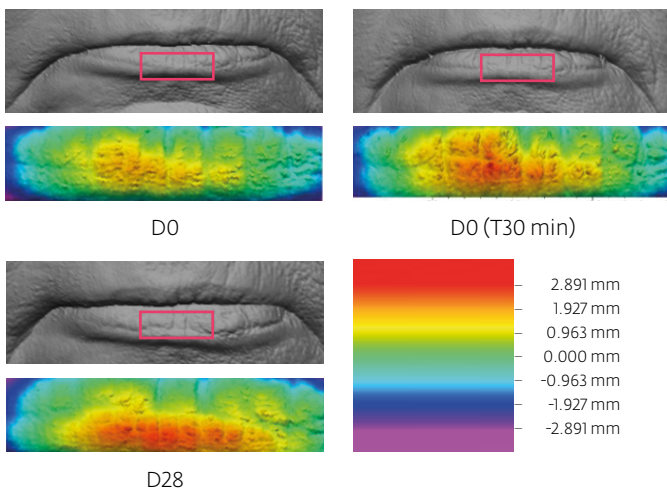
2. Smoothing effect – Ra parameter

Spherulite™ HA Ultimate showed a **significant decrease of RA parameter** of -2.7% which induce a smoothing effect in comparison with placebo after D28 days.

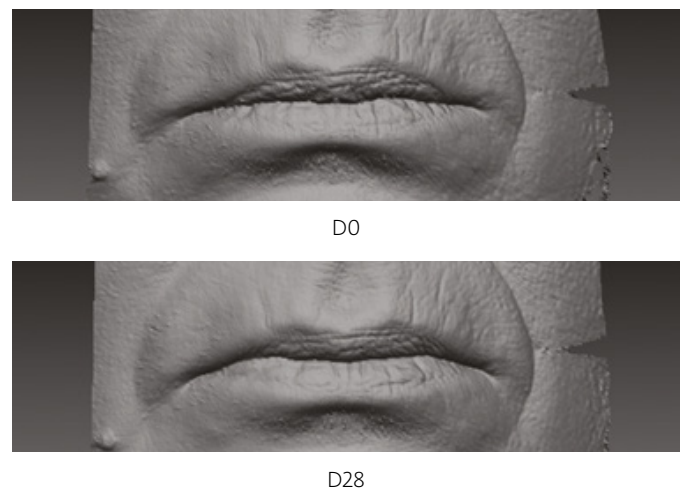


*p<0.05 Wilcoxon test vs D0 (normalized data's); #p<0.1 Mann Whitney test vs placebo (normalised data's)

Plumping effect on lips using Dermatop® Subject #44 (58 y.o)



Smoothing effect on lips using Dermatop® Subject #48 (56 y.o)



Summary



Technical information

Suggested INCI:	Glycerin (and) Water (and) Sucrose Palmitate (and) Glyceryl Linoleate (and) Tocopherol (and) <i>Helianthus Annuus</i> (Sunflower) Seed Oil (and) Sodium Hyaluronate
Technology:	Microencapsulation
Preservation:	Preservative free
Appearance:	Viscous cream
Solubility:	Dispersible in water
Dosage:	1% to 3%
Processing:	Can be dispersed in water (ex: Spherulite™ HA Ultimate + water, 1:3 respectively) and introduced after emulsification at gentle stirring or high shear mixing at temperatures below 40°C, at a pH between 4 and 8.

Claims

Claims:	Lip plumping, anti-wrinkle, skin lifting
Applications:	Lip serums or balms, anti-ageing products to plump wrinkles, facial rejuvenation, nasolabial anti-wrinkles products, anti-crow's feet products, skincare for mature skin.

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LEAFLET-SPHERULITE™ HA ULTIMATE-05.22