



Unique&Easy Micro-Encapsulation Solutions

# HydroSal® Youth

## Skin Rejuvenation to Keep Your Face Looking Youthful

This is a unique solution for mature individuals who often show greater signs of aging, such as looser skin, wrinkles, loss of skin elasticity, firmness, and youthful appearance. Studies have shown that most antiaging ingredients are hydrophilic and very compatible with lotions but less compatible with our skin's hydrophobic nature. The challenge is to deliver Hydrophilic actives into the skin effectively.

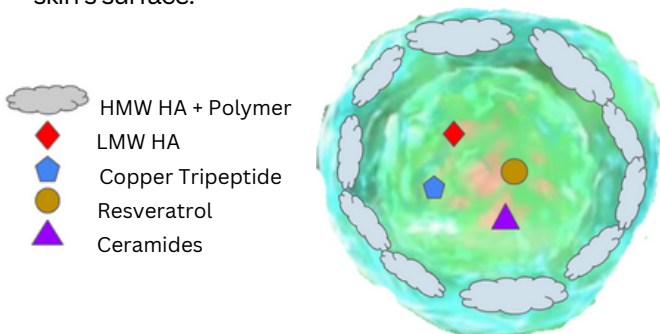
### HydroSal® Technology

HydroSal® Youth is a technology that stimulates collagen and elastin production, enhancing skin elasticity and firmness, hydrates and plumps the skin, improving its texture and making it appear youthful, smoother, and more supple.

This technology encapsulates potent Peptides, Hyaluronic Acids (HA) of various molecular weights, Ceramides, and Resveratrol into tiny spheres (fig 1).

The ceramide-lipid core encapsulates the hydrophilic actives, protects them from premature degradation, and functions as a vehicle to allow them to reach deeper skin levels where they are needed.

High-MW HA and polymers coat the ceramide core. When applied, the HA forms a hydrating barrier on the skin's surface.

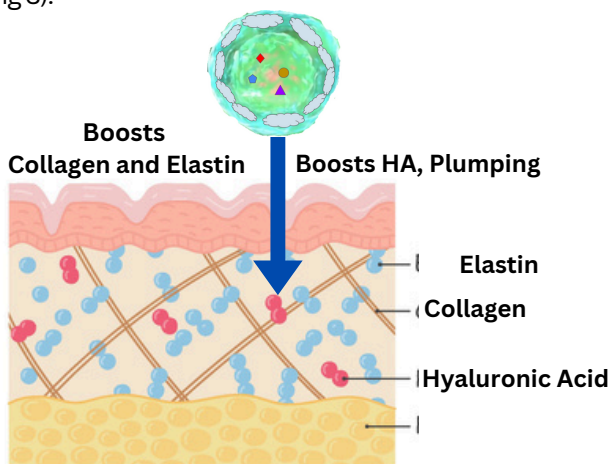


**Figure 1:** Illustration of HydroSal® Youth



Hyaluronic Acid is part of the skin structure and supports youthful-looking plumped skin. High MW HA can be only injected into the skin. The current technology enhances the penetration of Low MW HA.

Ceramides are known to repair the skin barrier to lock in moisture. Copper peptides boost the synthesis of collagen and elastin. Resveratrol is a potent antioxidant. All work together to reverse signs of aging (Fig 3).



**Figure 3:** Functions of HydroSal® Youth to reduce signs of aging.





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## Technical Data

Composition of HydroSal® Youth, PID: #8837-10

Copper Tripeptide-1, Sodium Hyaluronate, Ceramides, Resveratrol, Aqua, Propandiol, Hydroxypropyl Cellulose, Astragalus Gummifer Gum, Preservative



Figure 4: HydroSal® Youth (8837-10)

Table 1: Specification of HydroSal® Youth, PID: #8837-10

Property	Characteristic
Appearance at 20 C	Clear Liquid
Color	Clear to Slight Yellow
Odor	Characteristic
pH (Neat)	5.5-8.0

### Skin Testing

Skin moisture and hydration were measured using a TEWL (Transepidermal Water Loss) and moisture meter (Courage + Khazaka). The lotion containing 2% HydroSal® Youth was applied to the forearm of volunteers. The parameters were measured after 8 hours.

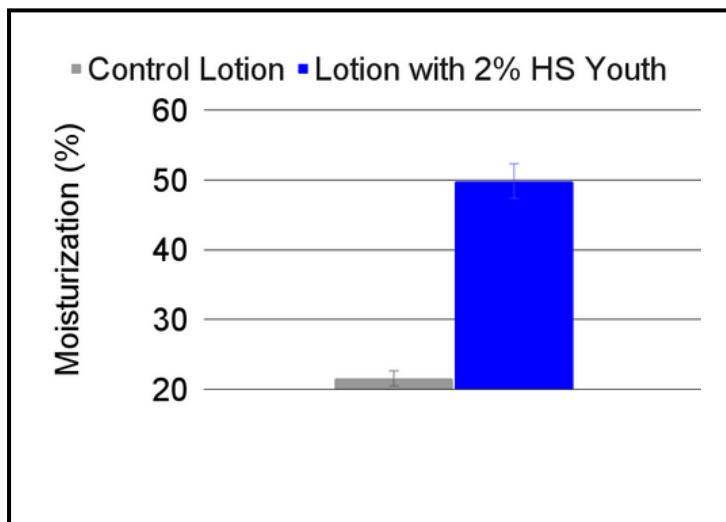


Figure 5: Skin moisturization 8 hours after application

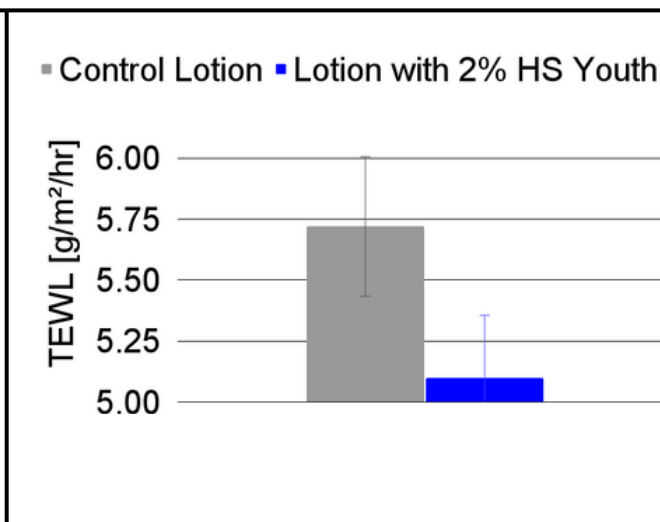


Figure 6: TEWL of skin 8 hours after application

A lotion containing HydroSal® Youth promoted higher skin moisturization and lower TEWL than a control lotion. This data indicates that HydroSal® Youth contributes to skin hydration and barrier support. Fig 2 shows the effect on the crow's feet to reduce the appearance of wrinkles within 15 minutes.





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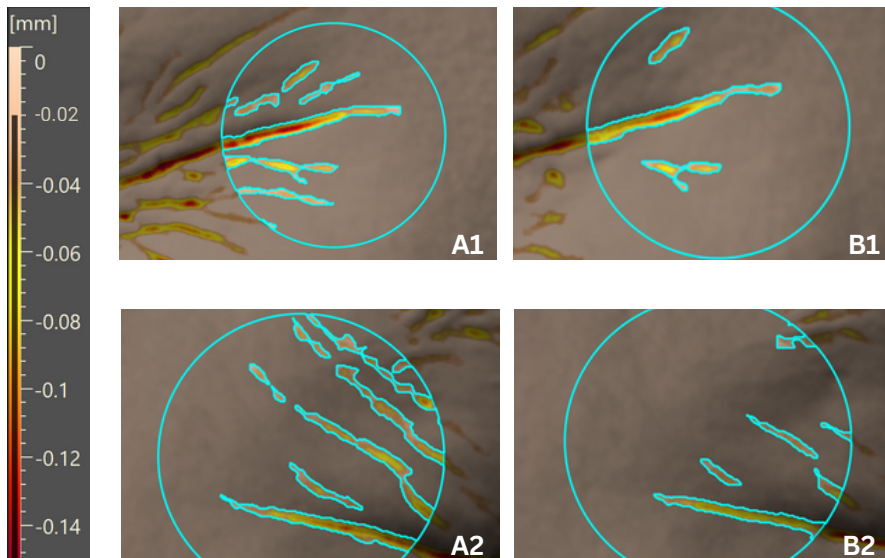
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## Clinical Anti Wrinkle *In Vivo* Data

### Crow's Feet Wrinkles

T= 0 weeks

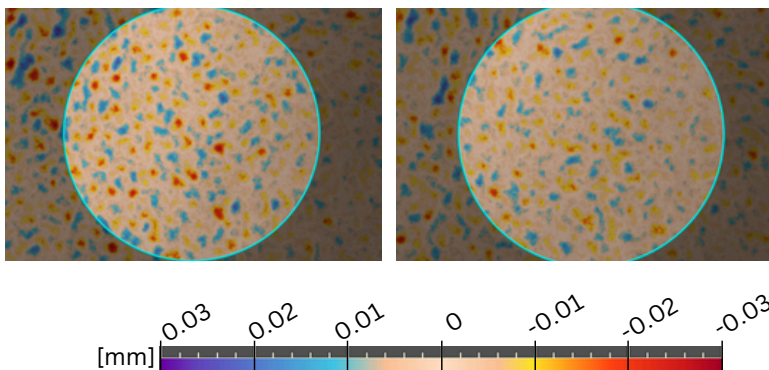
T= 4 weeks



#### Clinical Results

“Based on the results, we can conclude that the tested Hydrosal Youth was able to significantly improve the fine lines and wrinkles of crow’s feet wrinkles after 4 weeks of application when compared to the tested Cream Base since the parameters (Length (mm), Total area (mm<sup>2</sup>), Total volume (mm<sup>3</sup>) and Wrinkles count) were significant decreased.”

### Skin Texture



#### Clinical Results

“Based on the results, we can conclude that the tested Hydrosal Youth was able to significantly improve the skin texture (smoother skin) from Skin roughness parameters after 4 weeks of application when compared to the tested Cream Base since the parameters (Average roughness (Ra), Root mean squared roughness (Rq) and Elevation span (Rt)) were significant decreased.”





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## Applications

**Table 3.** Lotion with 2% HydroSal® Youth

Phase	List of Ingredients	Weight (%)
A1	Aqua	58.0
A2	Glycerin	6.0
A3	Xanthan Gum	1.0
B1	Cetearyl Alcohol (and) Cetearyl Glucoside	4.0
B2	Coco Glucoside	4.0
B3	Cetearyl Alcohol	6.0
B4	Butyrospermum Parkii (Shea) Butter	6.0
B5	Isononyl Isononanoate	6.0
B6	Squalane	6.0
C1	HydroSal® Youth PID 8837-10	2.0
C2	Preservative	1.0
	Total	100.0

**Table 4.** Serum with 2% HydroSal® Youth

PHASE	INCI	Weight (%)
A1	Aqua	79.60
A2	Sodium Gluconate	0.10
A3	Propanediol	10.00
B1	Glycerin	5.50
B2	Hydroxypropyl Guar	0.9
B3	Xanthan Gum	0.30
C1	HydroSal® Youth PID 8837-10	2.0
C2	Preservative	1.60
	TOTAL	100

HydroSal® Youth should be added at the end of formulation at around or below 40 C.



### Technology incorporation in a lotion:

1. Mix ingredients of Phase A sequentially in main vessel, pre-mixing A2 and A3.
2. Add phase B sequentially in a separate vessel and heat both vessels to 60-75C
3. When both have reached temperature, add phase B to A, remove from heat and mix at 600rpm
4. At 40C add Phase C under mixing
5. Cool to room temp. Adjust pH with 20% Lactic Acid or 20% L-Arginine if necessary.

### Formulation Tips:

HydroSal® Youth is a versatile technology that can be incorporated into a wide range of skincare and beauty products due to its hydrating and skin-plumping properties.

Here are some common types of products that benefit from adding HydroSal® Youth:

**Moisturizers** help to hydrate the skin and maintain moisture balance. HydroSal® Youth can be included in daytime and nighttime moisturizers to provide long-lasting hydration.

**Serums** are lightweight, highly concentrated formulations designed to target specific skincare concerns. HydroSal® Youth can be added to serums to deliver intense hydration and plumping

**Essences and Toners** are lightweight liquids applied to the skin after cleansing to prepare it for subsequent skincare products. HydroSal® Youth can be incorporated into these products to hydrate the skin after cleansing

**Eye Creams** containing HydroSal® Youth help to hydrate, smooth, and reduce the appearance of fine lines and wrinkles in the eye area.

**Sunscreens** containing HydroSal® Youth provide hydration and prevent moisture loss while protecting the skin from harmful UV rays

**Makeup Products** such as foundations, primers, and tinted moisturizers can incorporate HydroSal® Youth to keep the skin hydrated throughout the day



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## Substantiation

Ingredient	Description	Substantiation
LMW Hyaluronic Acid	Low molecular weight HLA is more easily absorbed by the skin to enhance collagen synthesis	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7464276/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7464276/</a>
HMW Hyaluronic Acid	High molecular weight HLA has more mass and is therefore more effective, though less penetrating. This causes a greater effect at the upper layers of the skin	<a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7464276/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7464276/</a>
HydroSal® Technology	Proprietary encapsulation technique	Salvona
Ceramides	“ Ceramides ensure that trans-epidermal water loss does not occur too quickly by holding onto water in the skin.”	<a href="https://www.cerave.com.au/blog/everyday-skin-care/ceramides-and-hyaluronic-acid#:~:text=What%20Do%20Ceramides%20Do%3F,onto%20water%20in%20the%20skin.">https://www.cerave.com.au/blog/everyday-skin-care/ceramides-and-hyaluronic-acid#:~:text=What%20Do%20Ceramides%20Do%3F,onto%20water%20in%20the%20skin.</a>
Resveratrol	“Hyaluronidase Inhibition” capabilities for resveratrol	<a href="https://www.oryza.co.jp/html/english/pdf/Resveratrol%20Ver.1.0.pdf">https://www.oryza.co.jp/html/english/pdf/Resveratrol%20Ver.1.0.pdf</a>
Copper Tripeptide	“It stimulates the production of several important skin-identical ingredients (e.g. collagen, elastin, and glycosaminoglycans)”	<a href="https://incidecoder.com/ingredients/copper-tripeptide-1">https://incidecoder.com/ingredients/copper-tripeptide-1</a>
Clinical Data	All relevant data courtesy of DermaProof Asia	

