

Delcore

Delivery system based on hyaluronic acid



COSMOS



PATENTED PREPARATION

INCI: SODIUM OLEOYL HYALURONATE



Production of Delcore in Contipro

Sustainable biotech production

Our HA is made by fermentation of a non-haemolytic microbial strain *Streptococcus equi*. Delcore is produced by chemical modification of very low molecular weight HA.

Environmental friendly production

- Everything we make is **biodegradable**.
- We have our own **solar power plant** and **wastewater treatment plant**.
- Our buildings are **heated with residual energy** from our production operations.

Natural product

Contipro's Delcore has **natural origin index 1** (according to ISO 16128-1:2016 and 16128-2:2017)



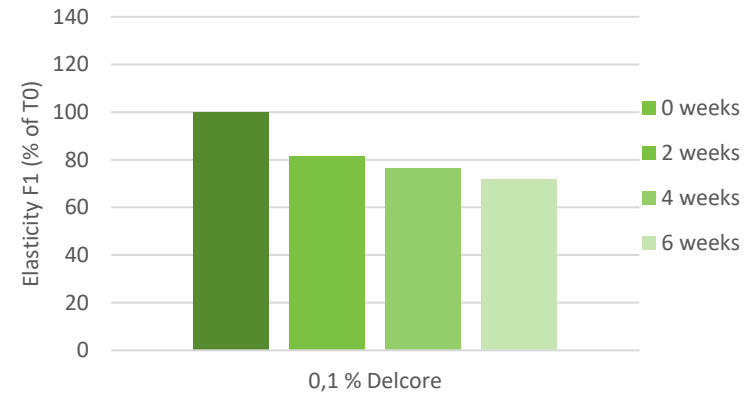


ELASTICITY

28%

ELASTICITY
IMPROVEMENT

*In vivo study by
Contipro*



DEL (0,1%) in emulsion, face, 7 volunteers.
R1 parameter determined by cutometer
(Courage and Khazaka electronics)

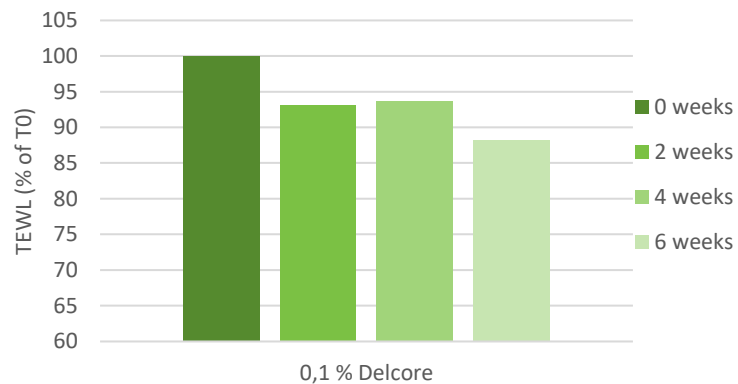


SKIN BARRIER

12%

TEWL REDUCTION

In vivo study by Contipro



DEL (0,1%) in emulsion, face, 7 volunteers.
TEWL determined by TM300 tewameter
(Courage and Khazaka electronics)

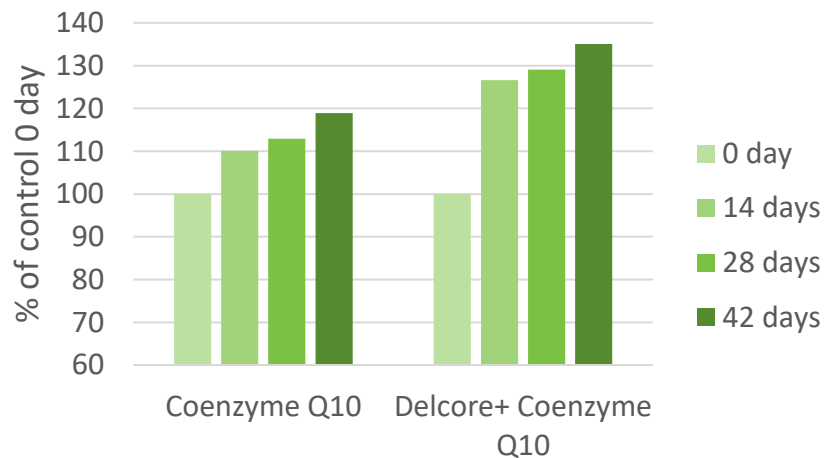


DELIVERY

17%

ENHANCED ACTIVITY OF
LOADED ACTIVE
INGREDIENT

In vivo study by
Contipro

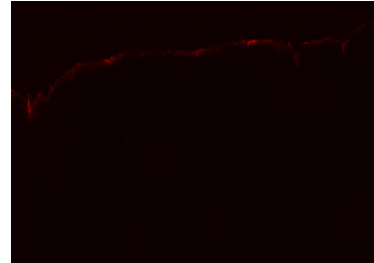


Hydration enhancement of loaded coenzyme Q10.
Hydration determined by CM 825 corneometer
(Courage and Khazaka electronics)

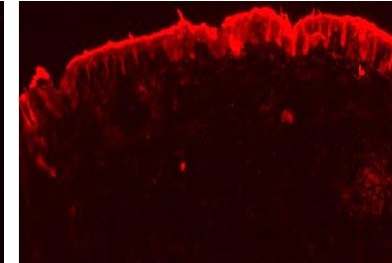
Additional advantages of Delcore

- * Penetrates deep into the dermis and into the skin cells
- * Enables dissolution of encapsulated hydrophobic compounds in water
- * Skin calming effect, reduction of erythema
- * Reduction of skin pores

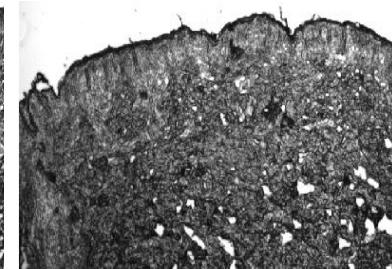
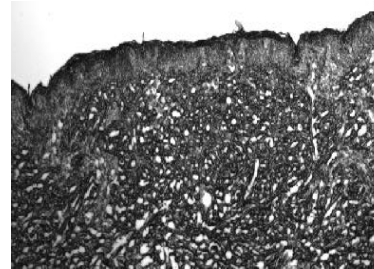
Nile Red
in oil



Nile Red
loaded in Delcore



Epidermis
Dermis



Epidermis
Dermis

Penetration test:

Nile red (hydrophobic red fluorescent dye)
Dissolved in oil/Incorporated into Delcore
Franz diffusion cells, 5 hours, 37 ° C
Fluorescence microscopy

Delcore: custom made product possibilities

Compounds compatible with Delcore

- Hydrophobic
- Soluble in oleic acid
- Low molecular weight (case to case)
- Often combined with tocopherol => increases loading capacities

Compounds incompatible with Delcore

- Hydrophilic, soluble in water
- High molecular weight (case to case)
- Unstable, easily degradable

Active compound	Wt. %	Note
CBD (+ tocopherol) ^{NEW!}	4 %	Available
Cholesterol (+ tocopherol)	7 %	
Clotrimazol (+ tocopherol)	7 %	
Coenzyme Q10	10 %	Available
Curcumin	0.5 %	
Ethyl Ferulate (+ tocopherol)	13 %	
18-β Glycyrrhetic acid (+ tocopherol)	2 %	
Phosphatidylcholine (+ tocopherol)	5 %	
Phytosterol (+ tocopherol)	6 %	
Resveratrol	1 %	
Retinyl palmitate	4 %	
Stearyl glycyrrhetinate (+ tocopherol)	6 %	
Tocopherol (vitamin E)	30 %	

Delcore: Collected technical data

- **INCI name:** Sodium Oleoyl Hyaluronate
- **Supplied form:** powder
- **Samples:** 1 g
- **Minimal ordering quantity:** 1 kg
(If ordering smaller quantities, price can increase due to handling fees)
- **Recommended concentration in final products:**
0.01 – 0.1 % of powder
(safety tests up to 0,1%)
- **Shelf-life:** 24 months
- **Source:** produced by chemical modification of very low molecular weight hyaluronic acid (10-20 kDa) by oleic acid. Hyaluronic acid is obtained by fermentation and oleic acid is of plant origin.

- **Compatibility and processing:** sensitive to heat; sensitive to extreme pH; incompatible with cationic substances, e.g. surfactants or polymers (polyquarternium-4, polyquarternium-10, etc.); foaming in case of a higher degree of substitution.
- **Solubility:** Fully soluble in water (speed of dissolving depends on molecular weight and degree of substitution); soluble in aqueous mixture of ethyl alcohol and isopropyl alcohol; soluble in 0.9 % NaCl at low degrees of substitution and molecular weight.



We Are Here to Help You

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