STEROCARE™

Trifolium pratense L.
«Red Clover».

Isoflavones to address the needs of mature skin

Fonction:
Fights signs of cutaneous ageing. Sterocare™ is specially designed for mature skin.

Definition:
Hydroglycolic extract of red clover flowers rich in isoflavones.

Properties:
Anti-wrinkle effect.
Improvement of the thickness of the skin.
Skin moisturising.

Characteristics:
Isoflavones are non-steroidal hormones.

INCI Name:
Trifolium pratense (Clover) Flower Extract – Glycerin – Butylene Glycol – Lecithin

Applications:
Anti-ageing cream for mature skin.

Formulation:
Water-soluble.
Incorporate at room temperature or at 45°C in the case of an emulsion.

Recommended use level:
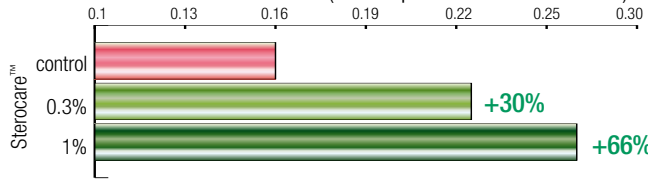3%

Patents:
WO 98/18927
FR 2 769 502

Smoothing of the skin in just 1 month
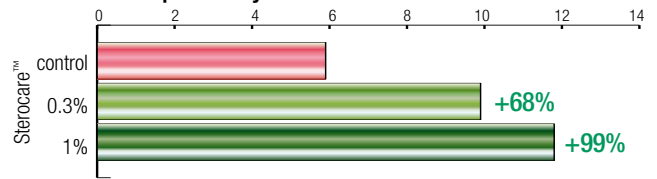
T0   T1 month

In vitro tests

Evaluation on culture of normal human fibroblasts 0,3 or 1% Sterocare™.

Stimulation of cell metabolism (cell respiration in mitochondria)

Sterocare™
- control
- 0.3% → **+30%**
- 1% → **+66%**

Stimulation of protein synthesis

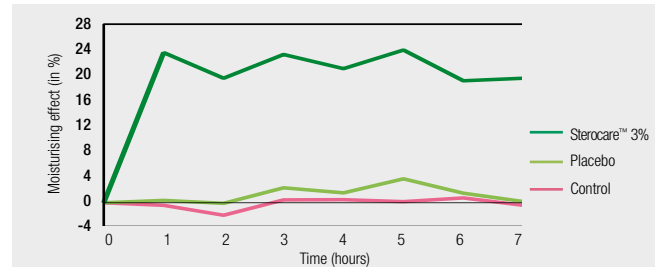Sterocare™
- control
- 0.3% → **+68%**
- 1% → **+99%**

In vivo tests

● Restoration of skin moisture

13 volunteers, application of a gel containing 3% of Sterocare™ against placebo, measurements each hour for 7 hours with a corneometer.
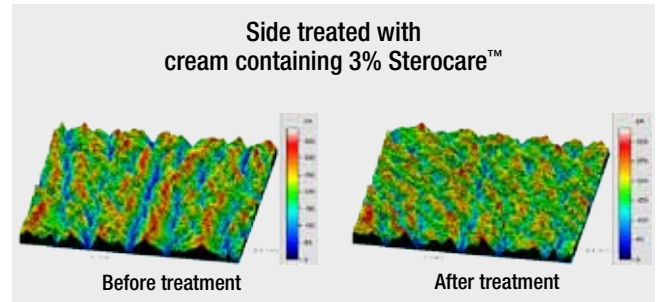
> **Sterocare™ has a strong, stable and long lasting moisturising effect.**

Legend: Sterocare™ 3%, Placebo, Control. Moisturising effect (in %) vs Time (hours)

● Anti-wrinkle effect

12 volunteers, twice daily application of a cream containing 3% Sterocare™ against placebo for 28 days, evaluation with image analysis of skin replicas.
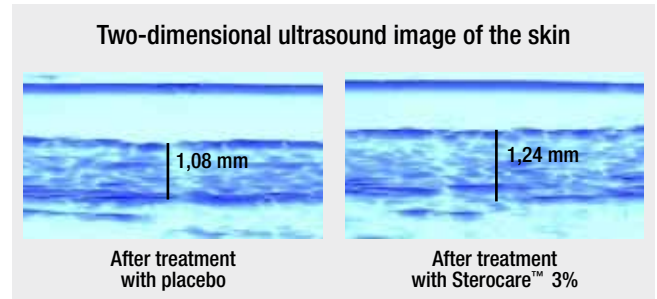
Improvement in wrinkle density	**-37%,** $p<0.01$
Main wrinkle depth	**-18%,** $p<0.01$
Wrinkle depth	**-20%,** $p<0.01$
Roughness	**-19%,** $p<0.01$

Side treated with cream containing 3% Sterocare™

Before treatment / After treatment

● Skin repair

8 volunteers, twice daily application of a cream containing 3% Sterocare™ against placebo for 28 days, evaluation of skin thickness with two-dimensional ultrasound image of the skin.

> **Tissues regain strength and skin matrix is regenerated. The skin layer thickness is significantly increased.**

Two-dimensional ultrasound image of the skin

1,08 mm / 1,24 mm

After treatment with placebo / After treatment with Sterocare™ 3%

Formulation

Cream for Mature Skin with Sterocare™ Indicative formula ref: SED0008087B

Part A	%
Ultrez 10 *(Carbomer, BF Goodrich)*	0.25
Deionised water	qsp 100
Part B	**%**
Glycerin	3.50
Part C	**%**
Potassium Sorbate	0.10
Part D	**%**
Brij S10 SO *(Steareth 10, Croda)*	1.50
Crodafos CES *(Cetearyl Alcohol - Dicetyl Phosphate -Ceteth-10 Phosphate, Croda)*	3.50

	%
DC 200 *(Dimethicone, Dow Corning)*	2.00
Crodamol OSU *(Dioctyl Succinate, Croda)*	7.00
Mixed Parabens	0.30
Span 60 *(Sorbitan Stearate, Croda)*	0.40
Part E	**%**
Potassium Sorbate 30%	0.35
Deionised water	3.50
Part F	**%**
STEROCARE™ *(Sederma)*	3.00

Protocol

Part A : Disperse Ultrez 10 into water. Let swell for 20 minutes. Then add part B and part C. Heat to 75°C in waterbath. Homogenize. Weigh part D and heat to 75°C in waterbath. Homogenize. Pour part D into part (A+B+C) with stirring. Homogenize then neutralize with part E. Add part F extemporaneously at about 35°.

Non-guarantee: This formulation has been subjected to limited stability tests and has been shown to perform well. However formulators adopting this approach should ensure to their own satisfaction long term stability and functionality. It is good practice to conduct safety tests on all final formulations prior to marketing. Suggested uses should not be taken as an inducement to infringe any existing patents.

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