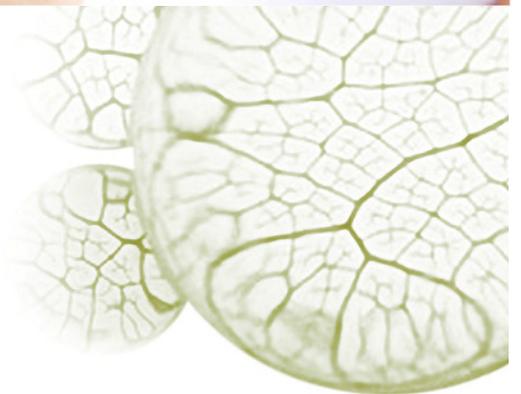
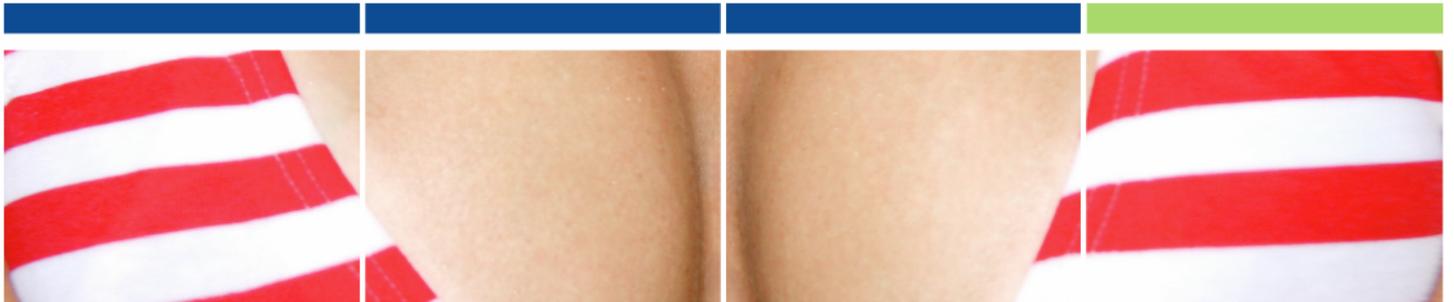




CellActive[®] - FORM

Firming & Forming



RAHN | Cosmetics

Your partner for excellence

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1 The cleavage

Attractive eye catcher

A lovely cleavage is charming and attracts admiring glances. An estimated 99 percent of cleavages captured on photo originate on the red carpets of this world – be it at award ceremonies, film premieres or fund-raisers. Not all women, however, have the courage to display a plunging neckline – they may regard their breasts as lacking firmness, their cleavage not worth displaying or simply feel their breasts are too small.

Cleavage “care zone”

The bridge from the curving sections of the breast to the flat area above the breastbone is without doubt charismatic and appealing, but the breast and cleavage skin does require special care. Compared to other parts of the body, it is particularly thin and consequently highly sensitive to the sun’s damaging rays, leading to early wrinkling. In addition, it has fewer sebaceous glands when compared to the rest of the body and thus tends to be prone to increased dryness. It is therefore vital that particular care is taken to address these requirements.



Illustration 1. Cleavage care zone – attractive but sensitive.

An attractive cleavage is always accompanied by a beautiful bust. However, changes during pregnancy and especially the normal ageing process cause slackening of the breast’s connective tissue, resulting in the breast losing its shape.

The skin as an element of support

The breast as such has no muscles. It is surrounded by an envelope of skin which supports the breast and gives it its curved shape. The most important factor for an attractive bust is the quality of this skin expanse, stretching from the chin via the neck and the shoulder to the breast. It is also known as the “natural bra” due to its support function. The quality of this support function is determined mainly by the firmness and elasticity of the skin in the cleavage area.

The subjective feeling of age

Ageing yet looking younger – consumers have a new definition of ageing. To meet this desire, plastic surgery has become widely accepted and grown in popularity in recent years. The female breast, as a symbol of fertility and a sign of sexuality, is often the focus of cosmetic surgery with procedures routinely performed in many countries.

No risk

Nevertheless 96% of female consumers would prefer non-invasive procedures, primarily due to the associated health risks of surgery. For this reason in particular, extensive research is being conducted with regard to developing highly effective specialised cosmetic products. Cosmetic “botox” or “lifting” are, for instance, successful examples. A vast market is also anticipated in the area of breast care and breast enlargement – which woman does not desire a firm and well-shaped bust.

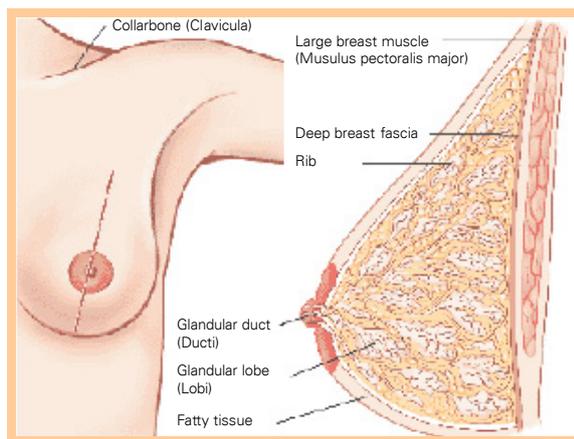


Illustration 2. Structure of the female breast. The breast has no muscles. It consists mainly of fatty- and connective tissue.

2 Treatment concept of CellActive® - FORM

2.1 Concept

CellActive® - FORM, is a plant-based complex of active ingredients supporting the natural process of lipid deposition lending fullness to the bust. The complex of active ingredients has been developed and tested specifically for application to the breast- and cleavage area. Its active principle is based on the synergistic action of its ingredients Mangosteen, Quince-hydrogel and the Essential Cell Boost Factor. It re-shapes the contours of the cleavage area and optimally accentuates the feminine features.

2.2 Key benefits – scientifically substantiated claims

(A) Volume-Effect - Added breast volume accentuates femininity and lends fullness to the cleavage.

(B) Firming-Effect - Improved skin elasticity in the cleavage area firms the breast and smoothes its surface.

2.3 Mode of action

The breast consists largely of fatty- and connective tissue. Stimulating the formation and storage of additional fat reserves enlarges the volume of the breast. Pericarp extracts of the mangostan fruit, composed uniquely of xanthonenes, flavonoids and alkaloids, were used to enhance the naturally provided capacity of lipid storage.

In addition, the breast and cleavage skin assumes a support function which keeps the breast “in shape“. Quince-hydrogel - with its film-forming and holding properties - supports the “supporting” function of this skin area by enhancing skin elasticity.

The “Essential Cell Boost Factor” acts as a provider of essential nutrients and compensates acute skin cell deficiencies. Skin metabolism is specifically stimulated. It supports and complements the effects of Mangostan and Quince-hydrogel.

3 The components of the active ingredient complex CellActive® - FORM

3.1 Mangosteen

The fruit of the tropical Mangosteen tree is revered in Asia as the “Queen of fruits”. The flesh of the fruit is particularly valued for its tropical exotic flavour. It resembles fruit such as the grape, pineapple, grapefruit and peach.



Illustration 3. The Mangosteen tree (*Garcinia Mangostana*) is endemic to Malacca and is grown in the tropics.



Illustration 4. Queen of fruits – The flesh of the Mangosteen fruit is white and delicious.

The Mangosteen fruit is furthermore classed among the so-called “superfruits” or “functional foods”, due to its high nutritional value and its antioxidant properties. The active ingredients in CellActive® – FORM are extracted from the skin of the fruit (pericarp) by means of a patented procedure. The phyto agents are classed among the xanthonenes and flavonoids, well known amongst other things for their antioxidant and anti-inflammatory effects.



Illustration 5. The Mangosteen fruit – its almost white flesh is covered by a leathery, reddish brown to violet-coloured skin.

3.2 Quince-hydrogel

The quince (*Cydonia oblonga*) became known as the fruit of the Goddess of Love, Aphrodite. Since antiquity to the present, the quince symbolises love, beauty and fertility. As a fruit, it is highly valued for its high content of polysaccharides, vitamins and minerals.

Highly concentrated Quince-hydrogel, extracted from the seed of the fruit by means of a gentle extraction procedure, is an active ingredient in CellActive® - FORM.

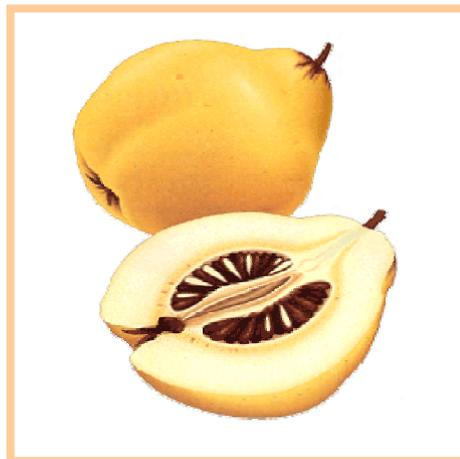


Illustration 6. The Quince – fruit of the Goddess of Love, Aphrodite.

3.3 Essential Cell Boost Factor

This highly active bio-ferment from the green algae *Chlorella vulgaris* and the proteins of the white lupin are the vital cocktail of substances contained within all the CellActive® products. As a provider of essential nutrients, this biosubstrate compensates acute skin cell deficiencies and also specifically stimulates the skin metabolism and enhances skin processes.

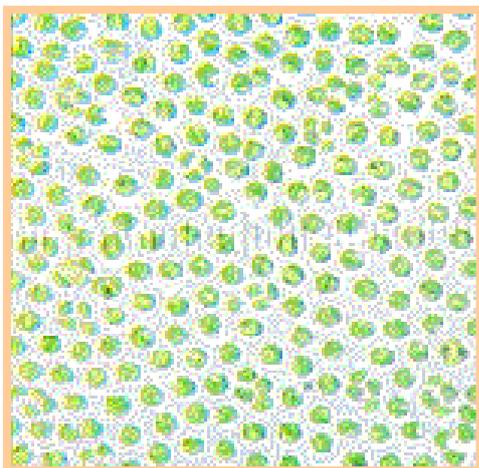


Illustration 7. The Green Algae *Chlorella vulgaris* – Vital cocktail of substances to stimulate skin metabolism.

4 Efficacy studies

4.1 The Volume Effect of CellActive® - FORM

4.1.1 Procedure and test conditions

A total of 66 women aged 18 – 44 participated in the study of the volume effect of CellActive® - FORM. The test persons had cup sizes A or B. Three groups, comprising 22 persons each, were treated simultaneously in a single blind study with active ingredient concentrations of 2% or 5% CellActive® - FORM or 0% CellActive® - FORM (Placebo). The product was applied twice daily to the breast and cleavage. The treatment was carried out over a three-month period. Breast volume measurements were taken prior to the treatment (“day 0”) followed by day 28, day 56 and day 84. An independent dermatological institute performed the measurements under standard conditions and statistically evaluated the results.

	Number	Age	Product
Group 1:	22 Women	Aged 19 to 43	5% CellActive® - FORM
Group 2:	22 Women	Aged 18 to 44	2% CellActive® - FORM
Group 3:	22 Women	Aged 19 to 40	0% CellActive® - FORM

Table 2. Details of the single blind study of the volume effect of CellActive® - FORM

Measurement principle of PRIMOS® Body:

The PRIMOS® Body instrument was used to measure the volume of the breast. This device generates 3D images of the breast and integrates the volume of a defined area.

This enables objective, non-invasive and highly accurate identification of the effects of cosmetic and medical products on breast volume.

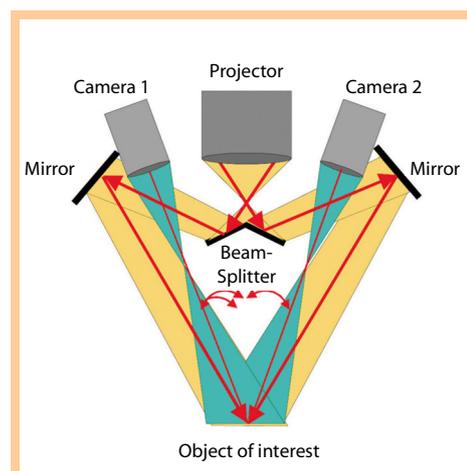


Illustration 8. PRIMOS® - Phase shifting Rapid in vivo Measurement of Skin.

Analysis of the 3D illustrations:

Each test person was examined with the PRIMOS[®] Body measuring device on day 0, 28, 56 and 84. The measurement data were evaluated by means of 3D analyses.

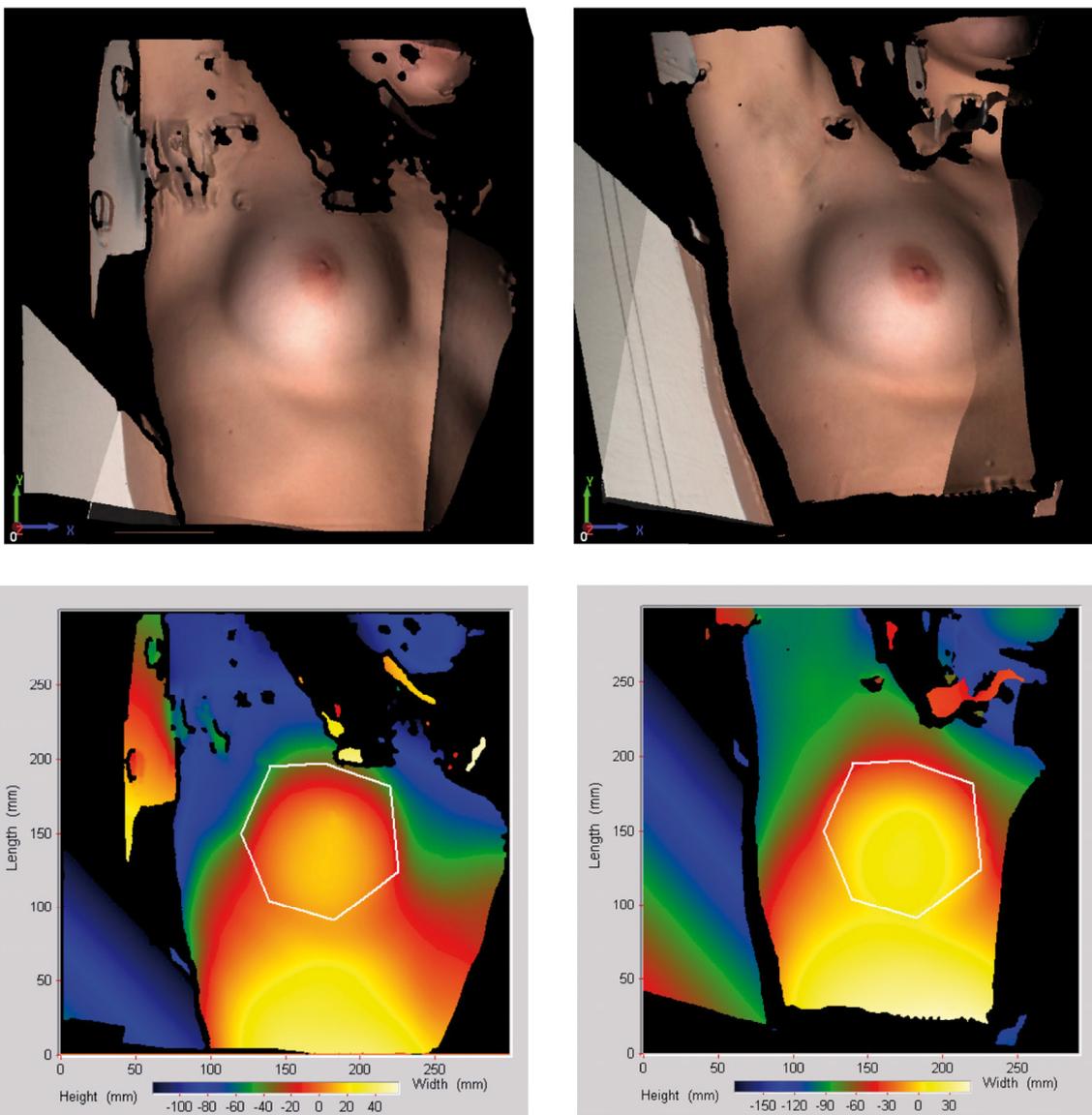


Illustration 9. 3D-Body Imaging Analysis with PRIMOS[®].

The analysis mode of the PRIMOS[®] Body measuring device compares the 3D-coordinates of the sequentially recorded measuring data of day 28, 56 and 84 with the measuring data of day 0. The PRIMOS[®] Body software uses this data to determine the 3D coordinates as well as the absolute volume. PRIMOS[®] Body is thus able to determine breast volume increase with maximum precision.

4.1.2 Results and effectiveness

The study results of the volume effect of CellActive® - FORM are summarised in Table 2 and Illustration 10.

Test product	28 days	56 days	84 days	Statistics
5% CellActive® - FORM	+ 7%	+7 %	+13 %	significant
2% CellActive® - FORM	+ 0%	+3 %	-3 %	Insignificant
0% CellActive® - FORM	+ 1%	+2 %	-3 %	insignificant

Table 2. Details of the single blind study of the volume effect of CellActive® - FORM

The Placebo test product (0% CellActive® - FORM) as well as the test product with 2% CellActive® - FORM does not increase the breast volume. The test product with 5% CellActive® - FORM significantly increases the breast volume.

Volume effect of CellActive® - FORM
3D-PRIMOS® - Breast volume analysis

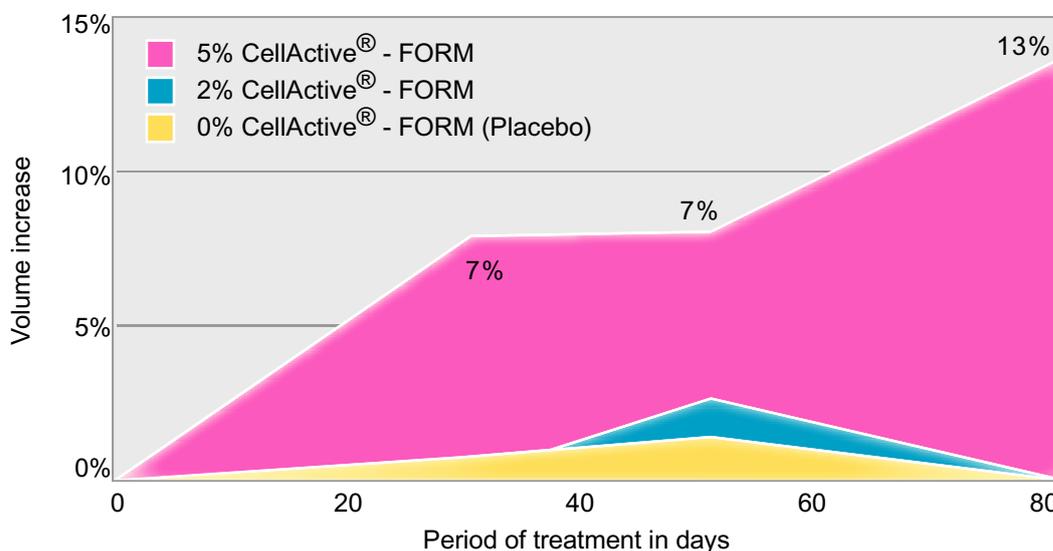


Illustration 10: Summary of the measurement results of the volume effect of CellActive® - FORM. The tests were conducted with concentrations of (a) 5% CellActive® - FORM (b) 2% CellActive® - FORM and (c) 0% CellActive® - FORM (Placebo). The measurement parameter is the percentage of the breast's volume increase. Measurements were recorded (a) on day 0 (prior to start of treatment); (b) after 28 days; (c) after 56 days; and (d) after 84 days' treatment.

4.2 The firming effect of CellActive® - FORM

Two parameters were examined for the firming effect:

(A) Skin elasticity – This implies the tissue’s ability to “snap back” to its original state after mechanical expansion. In figurative terms: how quickly does the skin return to its original state after being “pushed in” or “pulled out” with the fingertips.

(B) Skin smoothing – This is defined as the improvement of the surface profile or micro-texture of the skin. The examined parameters were the maximum vertical distance between the highest skin level (peak) and the lowest depression of a defined section of the skin.

4.2.1 Procedure and test conditions for the elasticity measurement

The SEM Cutometer was used to determine the elasticity of the skin. This method enables its biomechanical properties to be measured very accurately. The procedure is based on a vacuum-suction principle which slightly “lifts” a defined section of the skin and then allows it to snap back. The quicker the skin returns to its original state, the greater the skin’s elasticity parameter. Due to the measurement accuracy of this equipment the biomechanical profile of the skin can be analysed with great precision.

The single blind study was performed on 40 participants. The average age was 44.3 years. All participants were female, older than 18, clinically healthy, without skin diseases and not pregnant. The participants were divided into 2 groups and treated either with the test product (5% CellActive® - FORM) or the Placebo (0% CellActive® - FORM).

The test products were applied twice daily, morning and evening respectively, during the 28 days. The first series of measurements was recorded prior to the first application of the product, in order to determine the original condition. The second series of measurements was recorded after 14 days of treatment and the third after 28 days. An independent dermatological institute performed and statistically evaluated the measurements under standard conditions.

4.2.2 Results and effectiveness of the elasticity measurement

The results of the elasticity analysis are summarised in Illustration 11. The study results show that, already after a 14-day application of CellActive® - FORM, skin elasticity had increased significantly compared to the Placebo. After applying CellActive® - FORM for 28 days, the skin's elasticity had improved by 10.8 %.

Elasticity of the skin - CellActive® - FORM

Cutometer SEM - Biomechanical skin analysis

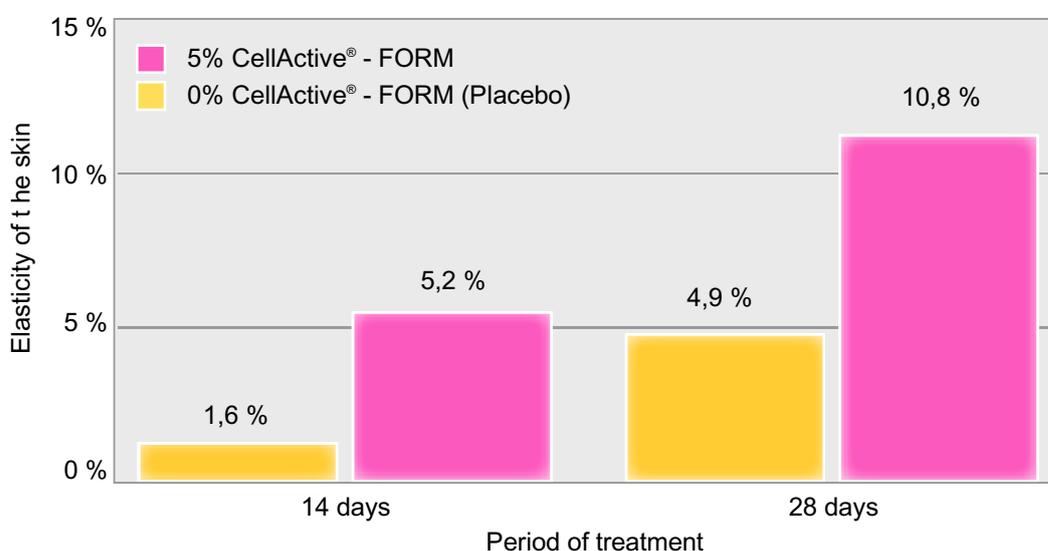


Illustration 11. Illustration of the skin elasticity measurement results after treatment using CellActive® - FORM. The tests were conducted using a test gel with concentrations of (a) 5% CellActive® - FORM (violet bars) and (b) with 0% CellActive® - FORM (Placebo, yellow bars). The measurement parameter is the percentage of the increased elasticity of the skin. Measurements were recorded (a) on day 0 (prior to start of treatment); (b) after 14 days and (c) after 28 days of treatment.

4.2.3 Procedure and test conditions for smoothing the skin

PRIMOS® 4 technology was used to analyse the texture of the skin. PRIMOS 4 (“Phase shifting rapid *in vivo* measurement of skin”) is a non-invasive measuring procedure to determine the micro-topography of the skin. The procedure provides extremely accurate 3-dimensional *in vivo* data of the human skin in real time.

The single blind study was performed on 40 participants. The average age was 44.3 years. All participants were female, older than 18, clinically healthy, without skin diseases

and not pregnant. The participants were divided into 2 groups and treated either with the test product (5% CellActive® - FORM) or the Placebo (0% CellActive® - FORM). The test products were applied twice daily, morning and evening respectively, during the 28 days. The measurement parameter RMax was analysed. The RMax parameter is the maximum vertical distance between the highest skin lift (peak) and the lowest depression of a defined section of the skin (see Illustration 13 for details).

The first series of measurements was recorded prior to the first product application in order to determine the original state. The second series of measurements was recorded after 14-day treatment and the third after 28 days. An independent dermatological institute performed and statistically evaluated the measurements in accordance with standard requirements.

4.2.4 Results and effectiveness of smoothing of the skin

The results of the skin surface analysis are summarised in Illustrations 12 and 13. After a 14-day application of CellActive® - FORM, the surface of the skin was already significantly smoother. After applying 5% CellActive® - FORM for 28 days, the wrinkles were reduced by 15%. The skin texture shown in Illustration 13 once again clearly demonstrates this effect.

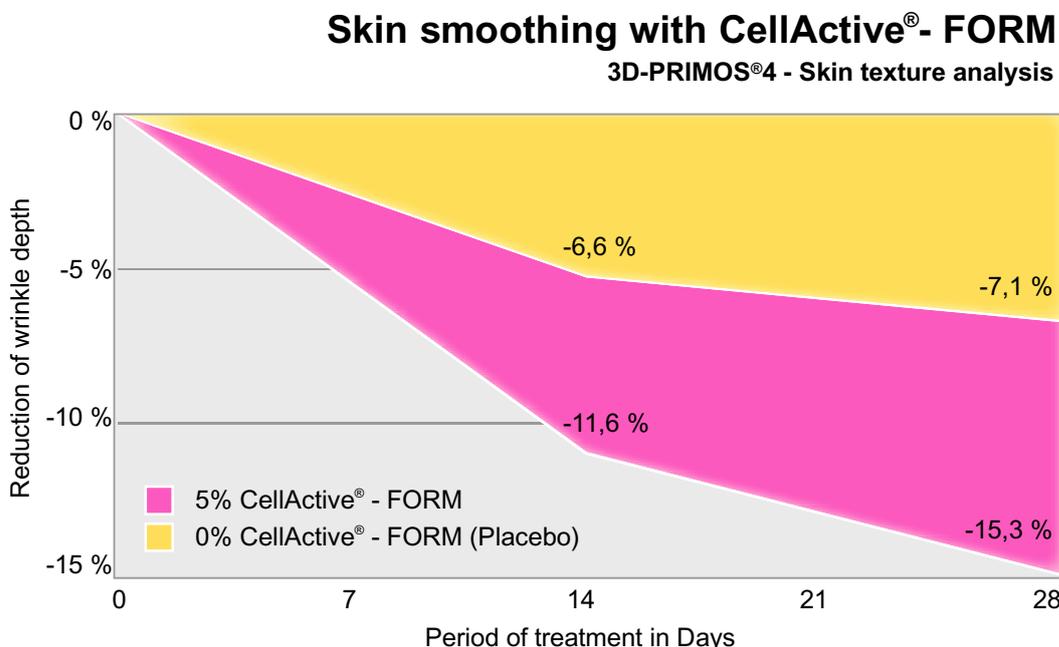


Illustration 12. Summary of skin smoothing by CellActive® - FORM measurement results. The tests were performed with concentrations of 5% CellActive® - FORM. The measurement parameter is the percentage of the skin's wrinkle reduction. Measurements were recorded (a) on day 0 (prior to start of treatment); (b) after 14 days; and (c) after 28 days of treatment.

Skin smoothing with 5% CellActive® - FORM

Surface profile of the skin with Phase-Shifting Rapid *in vivo* Measurement of Skin

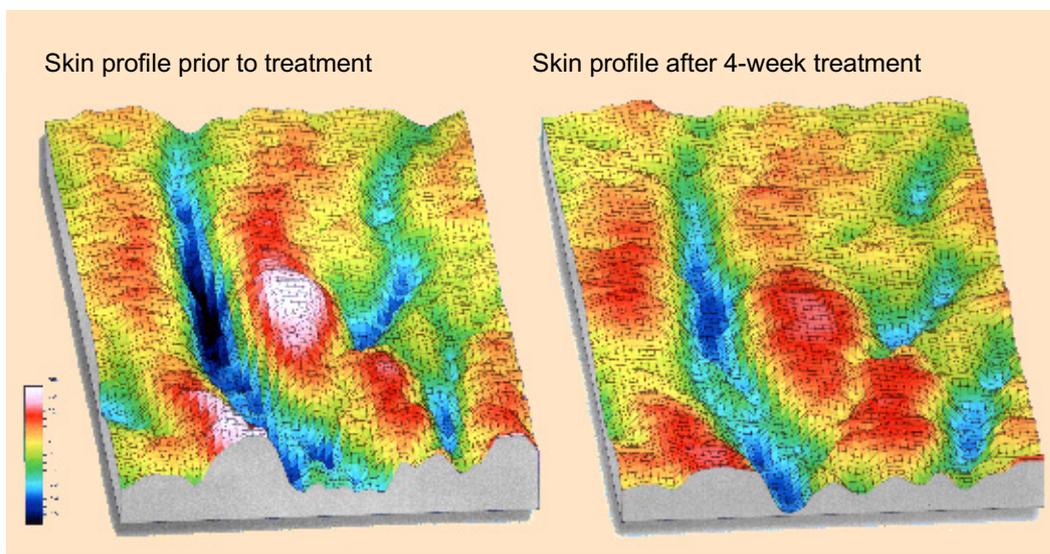


Abb. 13: 3-dimensional illustration of the skin surface before (left) and after (right) treatment using CellActive® - FORM. The study was performed with concentrations of 5% CellActive® - FORM. Measurements were recorded on day 0 (prior to start of treatment) and after 28 days of treatment.

4.3 Summary of the effectiveness of CellActive® - FORM

CellActive® - FORM - as a natural complex of active ingredients - was specifically developed and tested for application in the breast- and cleavage area. Its active principle is based on the synergistic action of its ingredients Mangosteen, Quince-hydrogel and the Essential Cell Boost Factor. The active ingredient combination of CellActive® - FORM supports the natural process of lipid accumulation (Volume Effect) thus accentuating the feminine form. CellActive® - FORM's structural component achieves an immediate physical effect by generating a hydrogel-polymer-network which stabilises, smoothes and firms the outer skin (Firming Effect). The additional regenerating, moisturising and protective properties of CellActive® - FORM smoothes the surface profile of the skin.

5 Application and Storage

5.1 Areas of application

Special care for breast enlargement

Cleavage care for firming and beautifying the skin texture

5.2 Origin of ingredients

CellActive[®] - FORM is plant-based and biotechnical. It does not contain ingredients of animal or mineral oil origin.

5.3 Storage instructions

CellActive[®] - FORM should be stored in the dark, at room temperature. It has a shelf life of 24 months from production. CellActive[®] - FORM is a product based on natural ingredients. It may show slight sedimentation over time.

5.4 Additives

CellActive[®] - FORM is preserved with 1 % Phenoxyethanol.

5.5 Formulating with CellActive[®] - FORM

It is advisable to add CellActive[®] - FORM into formulations at temperatures below 50°C.

5.6 Recommended concentrations

2 – 4 % for skin firming

5 – 8 % for skin firming and breast volume enlargement

6 Product Specification

Test item	Testing provision	Specification
Aspect		Yellow liquid
Smell		Characteristic
Consistency		Liquid
Refraction index 20°C	Ph.Eur.2.2.6	1.350 – 1.380
Density 20°C	Ph.Eur.2.2.5	1.040 – 1.060
pH-value	Ph.Eur.2.2.3	4.5 – 6.0
Total plate count	Pharm. Eur.2.6.12 / 2.6.13	< 100 KBE/g

7 Registration

7.1 INCI - Terms

EU: Aqua, Pyrus Cydonia Extract, Glycerin, Alcohol, Chlorella Vulgaris/ Lupinus Albus Protein Ferment, Garcinia Mangostana Extract

USA: Water, Pyrus Cydonia Seed Extract, Glycerin, Alcohol, Chlorella Vulgaris/ Lupinus Albus Protein Ferment, Garcinia Mangostana Peel Extract

Japan: Water, Pyrus Cydonia Seed Extract, Glycerin, Alcohol, Chlorella Vulgaris/ Lupinus Albus Protein Ferment, Garcinia Mangostana Peel Extract

Registration and contents:

	CAS-No.	EINECS	Share of Extract in %
Water	7732-18-5	231-791-2	
Quince Seed Extract	85117-13-1	285-564-8	10-25
Glycerine	56-81-5	200-289-5	
Ethanol	64-17-5	200-578-6	
Chlorella/Lupinus ferment	-	-	10-25
Mangosteen extract	90045-25-3	289-884-9	0.1-1

All raw materials are approved in Europe, Japan and the USA. CellActive® – FORM does not contain any of the 26 allergenic ingredients listed in the 7th EU guidelines.

7.2 Preservation

CellActive® - FORM is preserved with 1 % Phenoxyethanol.

8 Toxicology and safety evaluation

8.1 Toxicology

Test item	Testing procedure	Evaluation
Oral toxicity	As per literature	Non toxic
Skin irritation	Human Patch-Test on 30 persons undiluted	No irritation
Eye irritation	BECAM-Test (in vitro), undiluted	No irritation
Sensitisation	Rep. Human Patch Test on 30 Persons undiluted	Non sensitising
Photo Toxicity	Photo Patch-Test on 50 persons undiluted	No irritation
Mutagenicity	AMES-Test (in vitro), undiluted	Non mutagen

8.2 Exo-toxicology

Test item	Testing Procedure	Evaluation
Biodegradability	OECD 301 F	Highly biodegradable
Daphnien Limit-Test	100 mg/litre, 48 hours.	non-toxic

CellActive® - FORM has no eco-toxic effect. It is highly degradable, which excludes bio-accumulation.

8.3 Water hazard classification (WHC)

Classification acc. German guideline (VwVwS): WHC 2 (self-classification)

8.4 Safety evaluation

On the basis of existing toxicological data CellActive® - FORM may be classified as hazard-free. The 3-month in-vivo test on 66 persons also revealed no negative reactions.

9 Test emulsions for efficacy studies

(A) The efficacy study of the volume effect of CellActive® - FORM used the “BUST-Forming Cream-Gel” (Recipe A).

(B) The efficacy studies of the firming effect of CellActive® - FORM used the “BUST-Firming Gel” (Recipe B).

9.1 Recipe A - “BUST- Forming Cream-Gel”

Description: Light, white emulsion, pH-value 6.6

Phase	Raw material	INCI-Term (EU)	%
A	Water demin.	Aqua	80.45
	Glycerine 86%	Glycerine	4.00
	Carbopol ETD 2020	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.30
B	Cetiol SN	Cetearyl Isononanoate	3.00
	Cegesoft C24	Ethylhexyl Palmitate	5.00
	Perfume Plaisir	Parfum	0.15
	Uniphen	Phenoxyethanol, Methylparaben, Ethylparaben, Propylparaben, Butylparaben	1.00
	Keltrol F	Xanthan Gum	0.20
C	NaOH-Lsg 10%	Sodium Hydroxide, Aqua	0.90
D	CellActive® - FORM	Aqua, Pyrus Cydonia Extract, Glycerin, Alcohol, Chlorella Vulgaris/ Lupinus Albus Protein Ferment, Garcinia Mangostana Extract	5.00

9.2 Manufacturing process

- Manufacturing does not require heat
- Mix water, glycerine; spread Carbopol on surface
- Wait until Carbopol is completely wet and mix
- Mix Phase B
- Mix Phase A and B, then homogenise
- Add Phase C to neutralise and vigorously homogenise
- Add Phase D and again homogenise slightly

9.3 Recipe B - “BUST- Firming Gel”

Description: Opalescent Gel, pH-value 6.3

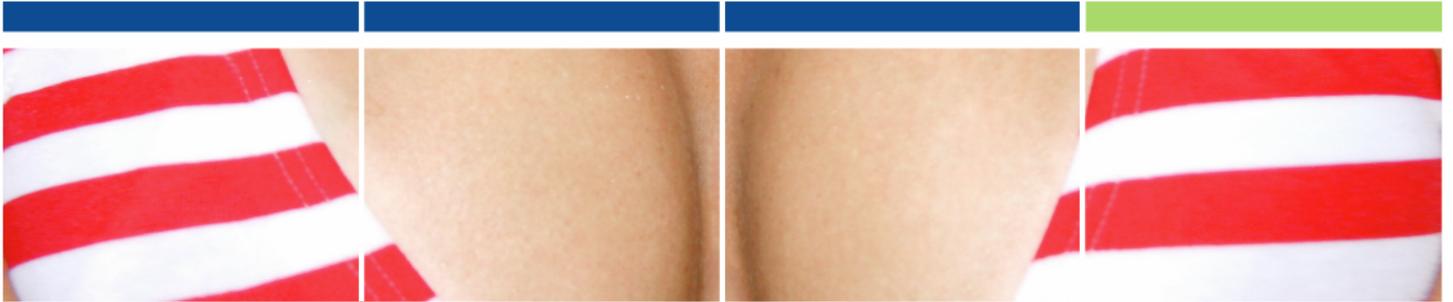
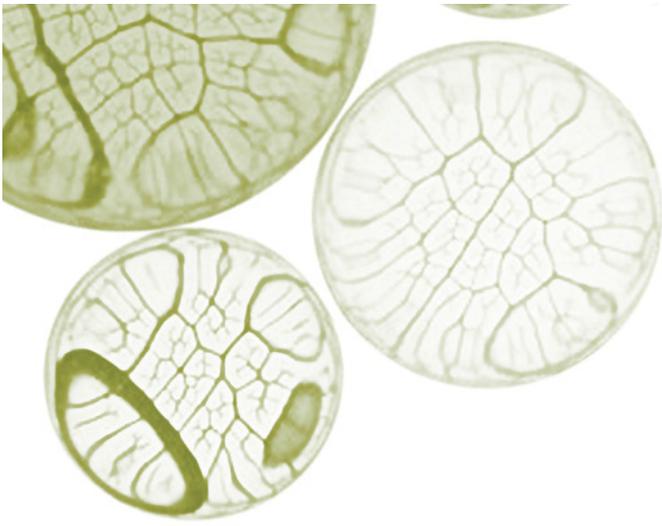
Phase	Raw material	INCI-Term (EU)	%
A	Water demin.	Aqua	93.30
	Keltrol CG-SFT	Xanthan Gum	0.20
	Carbopol Ultrez-20	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.40
	Uniphen	Phenoxyethanol, Methylparaben, Ethylparaben, Propylparaben, Butylparaben	1.00
B	NaOH-solution 10%	Sodium Hydroxide, Aqua	1.00
C	CellActive® – FORM	Aqua, Pyrus Cydonia Extract, Glycerin, Alcohol, Chlorella Vulgaris/ Lupinus Albus Protein Ferment, Garcinia Mangosteena Extract,	5.00
	Parfum Bulgo	Parfum	0.10

9.4 Manufacturing process

1. Provide water, premix Keltrol with Uniphen and add by stirring vigorously, dust with Carbopol and allow to moisten for 15 minutes
2. Neutralise with NaOH-solution by stirring
3. Add Phase C to the mixture and mix

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