

**CLINICAL AND INSTRUMENTAL STUDY FOR THE
EVALUATION OF THE ANTIAGEING EFFICACY OF A
COSMETIC PRODUCT FOR THE DÉCOLLETÉ**

TORSTONE SA

RIVOLI

**Le Décolleté Lissant & Raffermissant N°02
code: lab-00621.17**

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STUDY DESIGN

1.1. Title

Clinical and instrumental study for the evaluation of the anti-ageing efficacy of a cosmetic product for the décolleté.

1.2. Aim of the study

The study is aimed to evaluate the anti-aging activity of a cosmetic product dedicated to the décolleté area. Moreover, product ophthalmological tolerability and safety of use are monitored within the study period. Primary endpoints of the trial are to evaluate product smoothing and firming efficacy. Secondary endpoints are the evaluation of the moisturizing efficacy and the brightening effect of the product.

In order to reach this goal, a clinical-instrumental study is carried out on 25 healthy female subjects, aged between 40 and 55 years old, showing light/moderate wrinkles in the décolleté area and moderate slackness at level of the internal upper arm area. Product effect/efficacy are evaluated 15 minutes (T15min; pH evaluation and skin brightness) after its first application and after 28 (T28) and 56 (T56) days of use by means of non-invasive bioengineering techniques. The instrumental analysis is integrated with the clinical assessment carried out by the experimenter and by a self-assessment questionnaire filled in by the enrolled volunteers.

1.3. Tested product

1.3.1. Information provided by the Customer

- ☒ Product name: **Le Décolleté Lissant & Raffermissant N°02**
- ☒ Way of use - short term test: tested product is applied in the test facility by the experimenter (2mg/cm²). Long term test: apply morning and evening on the décolleté (2 pumps) and on the upper inside arm (2 pumps arm right + 2 pumps arm left).
- ☒ The tested cosmetic products conform to REGULATION (EC) No 1223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 30 November 2009 on cosmetic products (recast) (Text with EEA relevance) and to its annexes.
- ☒ The tested cosmetic product was evaluated for its safety of use on human volunteers (safety assessment).
- ☒ INCI formula:
AQUA (WATER), PROPANEDIOL, BUTYROSPERMUM PARKII (SHEA) BUTTER, CAPRYLIC/CAPRIC TRIGLYCERIDE, COCOGLYCERIDES, CETEARYL ALCOHOL, GLYCERYL STEARATE CITRATE, PANTHENYL TRIACETATE, GLYCERIN, POLYGLYCERYL-3 DISTEARATE, ISONONYL ISONONANOATE, COCOS NUCIFERA (COCONUT) OIL, HYDROGENATED PHOSPHATIDYLCHOLINE, PULLULAN, ETHYL LINOLEATE, PARFUM (FRAGRANCE), PENTYLENE GLYCOL, CAPRYLYL GLYCOL, SYNTHETIC FLUORPHLOGOPITE, BORON NITRIDE, SIMMONDSIA CHINENSIS (JOJOBA) SEED OIL, TITANIUM DIOXIDE (CI77891), OLEYL ALCOHOL, XANTHAN GUM, SODIUM POTASSIUM ALUMINUM SILICATE, ETHYLHEXYLGLYCERIN, DIPROPYLENE GLYCOL, GLYCERYL CAPRYLATE, GELLAN GUM, SQUALANE, TAMARINDUS INDICA SEED GUM, SILICA, TETRASODIUM GLUTAMATE DIACETATE, DISODIUM ACETYL GLUCOSAMINE PHOSPHATE, SODIUM GLUCURONATE, TOCOPHEROL, GLUCOSE, SUCROSE, TIN OXIDE, CERAMIDE NP, MAGNESIUM SULFATE, SODIUM HYDROXIDE, CI 17200 (RED 33)

1.4. Ethical requirements

The study is carried out in accordance with the following ethical requirements.

1. All the subjects participating in the study are healthy volunteers of at least 18 years old.
2. All of the subjects participating in the study are selected with the supervision of a dermatologist according to inclusion/not inclusion criteria.
3. Volunteers participation in the study was totally free.
4. All of the subjects participating in the study are informed of the aim and the design of the study.
5. All of the subjects participating in the study are informed of the possible risk involved in the study execution.
6. All of the subjects participating in the study give their informed consent signed at the beginning of the study.
7. Before volunteer exposure to the tested product, all relevant safety information about the product itself and each ingredient were collected and evaluated.
8. All of the study procedures are carried out in compliance with the ethical principles for the medical research (Ethical Principles for Medical Research Involving Human Subjects, adopted by the 18th WMA General Assembly Helsinki, Finland, June 1964 and amendments).
9. All of the precautions are taken in consideration in order to avoid excessive skin reactions.
10. If any unexpected/adverse skin reaction occurs, medical investigating specialist evaluates the severity of the reaction (reporting it in the volunteer's data collecting sheet) and proceeds with appropriate therapy.



1.5. Subjects

1.5.1. Subjects selection

The subjects participating in the study were selected by a board certified Dermatologist from a panel of healthy volunteers, in accordance with the following inclusion/non-inclusion criteria.

1.5.1.1. Inclusion criteria

- ☒ Healthy female subjects
- ☒ Aged between 40 and 55 years old
- ☒ Caucasian ethnicity
- ☒ Subjects showing light/moderate wrinkles in the décolleté area
- ☒ Subjects showing moderate slackness at level of the internal upper arm area
- ☒ Willingness to not use products/submit to treatments likely to interfere with the product to be tested,
- ☒ Willingness to not expose to sun/solar lamps during all the study period,
- ☒ Willingness to not vary the normal daily routine,
- ☒ Commitment to be willing and able to comply with the study requirements,
- ☒ Commitment not to use cosmetic products with the same activity of the study product during the study,
- ☒ Subject informed about the study procedures and having signed an informed consent form.

1.5.1.2. Non-inclusion criteria

- ☒ Subject does not meet the inclusion criteria above reported,
- ☒ Sunburn, suntan, scars, or active dermal lesions on the test area,
- ☒ Subjects accustomed to use tanning beds,
- ☒ Subjects that have shown allergies to cosmetic products, toiletries, sunscreens and/or topical drugs,
- ☒ Subject having a skin condition that the Investigator deems inappropriate for participation
- ☒ Pregnant or breastfeeding women.

1.5.1.3. Study withdrawal

A subject enrolled in the study can be withdrawn and considered as a drop-out when: (i) adverse reactions, judged severe and attributable to the tested product, occur, (ii) the subject is no longer eligible to participate in the study, (iii) the subject develops a pathological condition, not related to the study, but appearing during the study period, (iv) it is required the prescription of a concomitant treatment, (v) the study requirements are not satisfied (significant deviation from the protocol), (vi) significant non-compliance with respect to product use or to the study protocol.

1.6. Study procedure

The study is carried out as follow:

- **T0:** enrollment of 25 subjects according to inclusion/non-inclusion criteria. Instrumental and clinical analysis of the parameters under study (basal evaluation, T0);
- **SHORT TERM TEST:** instrumental evaluation on décolleté area of skin radiance and skin pH* after 15minutes (T15min) from the first product application.
*skin pH measurement is performed in order to verify that the product doesn't alter skin conditions.
- **LONG TERM TEST:** instrumental evaluation on décolleté area of skin moisturization, elasticity and firmness (also performed on internal upper arm area), profilometry (Ra and Rz parameters) and clinical evaluation of the skin tonicity (also performed on internal upper arm area) after 28 (T28) and 56 (T56) days of product use. Moreover, digital pictures of the décolleté area are acquired and volunteers are asked to express their opinion on tested product by answering to a questionnaire.

1.7. Materials and methods

In the sections here below the materials and methods used in this study are reported. All the study procedures are carried out under temperature and humidity controlled conditions (temperature 18-26°C and humidity 50±10%).



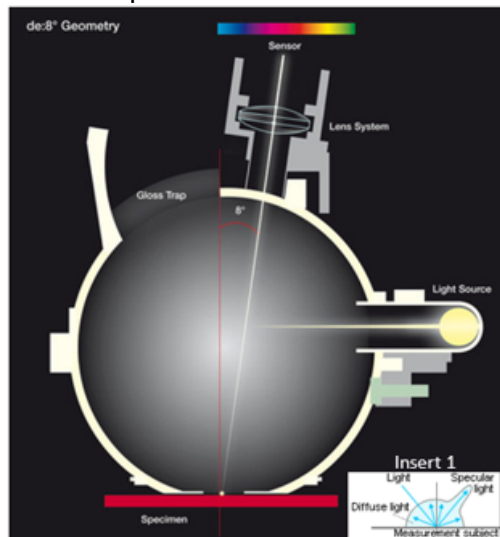
PRODUCT EFFICACY – INSTRUMENTAL EVALUATIONS

1.7.1. Skin radiance

Skin radiance (or skin brightness), is the ability of the skin to reflect the light and it is measured using the gloss parameter (taken using the spectrophotometer/colorimeter CM-700D (Konica-Minolta). The instrument emits diffuse light that reaches the skin through an opening located at the extreme of the lighting sphere. A sensor located at 8 ° compared to the vertical axis of the opening detects then the reflected light and calculates a parameter known as "gloss". The gloss value is used in the management of the brilliance of the colour.

For further information on the principle of the measurement and data analysis see box 1.

Box 1 – Gloss parameter



When light reach a surface it is reflected at the equal but opposite angle from the light source; this is called specularly reflected light. This specular component is reflected as if reflected by a mirror. The light that is not specularly reflected, but scattered in many directions, is called diffuse reflectance (insert 1). The sum of the specular reflectance plus the diffuse reflectance is called the total reflectance. For objects with shiny surfaces, the specularly reflected light is relatively strong and the diffused light is weaker. On rough surfaces with a low gloss, the specular component is weak and the diffused light is stronger. The measuring geometry d: 8° features an optical device which provides diffuse illumination (Ulbricht sphere). The light (Xenon lamp) is projected into a sphere. The interior of the sphere is coated with a white highly reflecting substance (barium sulphate, ceramic, special plastic) which reflects the light manifold. A shutter, an optical element inside the sphere, prevents the directional rays from reaching the measuring sample directly. The sample is positioned at an opening of the sphere and is illuminated from all directions with a close to perfect diffuse light. Through an opening at the top of the sphere the sensor is viewing the surface being measured with an angle of 8° to the vertical. In order to prevent reflection of specular light from the sample surface, the instrument feature a gloss trap. When the trap which is arranged with an angle of -8° to the viewing opening, is open, the light which would otherwise be reflected from the interior wall of the sphere, will be eliminated and can therefore not

illuminate the sample. The relation between directional and diffuse reflection allows calculating the gloss component. The measuring system including gloss is named di: 8° whilst the measuring system excluding gloss is described as de: 8°.

1.7.2. Skin moisturization

The measurement of the skin moisturizing is based on the internationally recognized Corneometer® method. Corneometer® method is based on the dielectric constant of water. The probe shows changes of capacitance according to the moisture content of the measuring object. An electric scatter field penetrates the very first layers of the skin and determines the dielectricity. The used device is a Corneometer CM 825 (Courage+Khazaka, electronic GmbH).

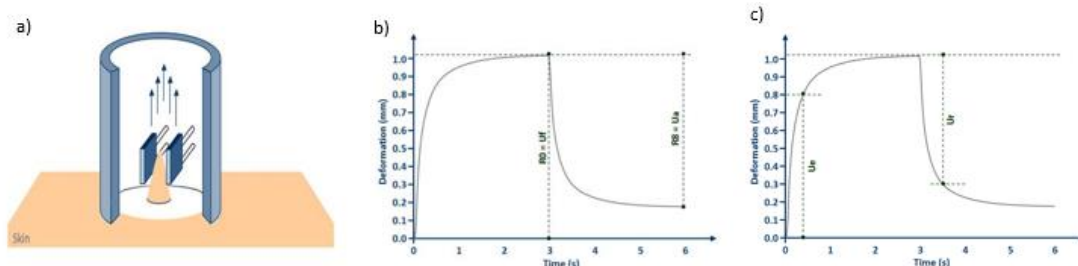
1.7.3. Skin elasticity/firmness

Skin elasticity measurement is based on the suction/elongation method and the subsequent release of the skin inside the opening of the instrument (Cutometer®MPA 580, Courage+Khazaka, electronic GmbH). During the suction/elongation phase the instrument generates, in fact, a constant negative pressure (450 mbar) able to aspirate the skin inside the measurement probe. The suction phase is followed by the release phase, in which the pressure inside the probe is switched to 0 mbar allowing the skin recovery after the elongation phase. An optical measurement system evaluates the depth of the skin inside the probe in the two phases of the measurement, the obtained data are then elaborated and showed graphically and numerically in order to calculate the viscoelastic properties of the skin. For further information see box 4.

- **R2 parameter** (gross elasticity or overall elasticity): it is the ratio between the residual deformation and the maximum elongation of the skin (U_a/U_f) and it indicates the ability of the skin to return to its original state of recovery after a stressing event. Closer the value is to 1, more elastic is the skin.
- **R0 parameter** (skin distensibility): it is the first max amplitude of the curve (U_f) and it represents the passive behaviour of the skin to a force (i.e. gravity). A reduction of R0 parameter indicates an improvement of the skin ability to oppose to the deformation imposed by the probe during the suction phase, than can be expressed as an improvement of skin firmness.



Box 2 (a) Skin elasticity measurement process. (b) R0 parameter. (c) R2 parameter.



1.7.4. Skin profilometry

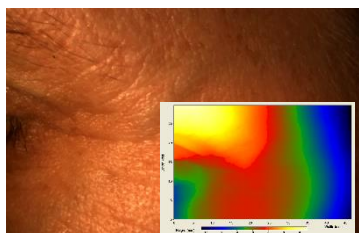
Skin surface is quantitatively assessed by Primos 3D (GFMesstechnik GmbH). Primos 3D is a non-contact *in vivo* skin measurement device based on structured light projection. In conjunction with a comprehensive 3-D measurement and evaluation software, the sensor allows to evaluate skin surface properties (i.e. wrinkle depth, volume, roughness etc.). In this study wrinkle depth and Ra parameter (related to skin smoothness) are evaluated. For further information see box. 3.

1.7.5. Skin pH

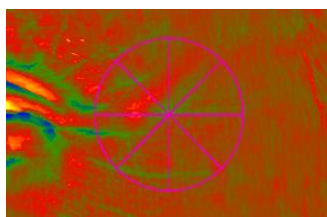
The used instrument is the SKIN pH-METER 905®, Courage + Khazaka GmbH. The measure is based on a combined electrode of high quality, in which both the glass electrode sensitive to H⁺ and the additional reference electrode are placed in the same site. It is connected to a handle probe containing the measurement electronics. Before the measurements, the SKIN pH-meter® 905 (Courage + Khazaka electronic GmbH) is calibrated using two buffer solutions with known pH (pH 4.01 and 1.7) as reference.

Measurement range: 0 to 12; accuracy: ± 0.1 pH.

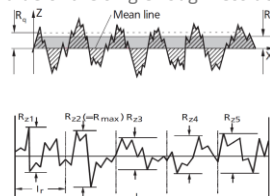
BOX 3 - Skin profilometry by means of Primos 3D analysis



The technique. Primos 3D is a 3D scanner that create a point cloud (set of vertices in a three-dimensional coordinate system) of geometric samples on the surface of the subject. These points are then used to extrapolate the shape of the subject (a process called reconstruction). Like cameras, 3D-scanner have a cone-like field of view, and like cameras, they can only collect information about surfaces that are not obscured. While a camera collects color information about surfaces within its field of view, 3D scanners collect distance information about surfaces within its field of view. The “picture” produced by a 3D scanner describes the distance to a surface at each point in the picture (see the image in the insert).



Calculation of smoothness/roughness. For the calculation of a star roughness, intersections are arranged in a star shape by the program. The calculation of the parameter occurs accordingly to the determination of the line roughness (separate for every star shape arranged intersection). In this study roughness is calculated through the Ra and Rz parameters. Ra parameter is the arithmetic average of the absolute values of the roughness profile ordinates (see the picture here below). Rz is the arithmetic mean value of the single roughness depths of 5 consecutive sampling lengths:



Ra is mathematically calculated as:

$$R_a = \frac{1}{l} \int_0^l |Z(x)| dx$$

Rz is mathematically calculated as:

$$R_z = \frac{1}{n} (R_{z1} + R_{z2} + \dots + R_{zn})$$

1.7.6 Clinical evaluations

Skin tonicity is evaluated on décolleté and in the internal upper arm area according to the clinical internal scale reported in box 4.

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Box 4 Clinical classification of skin firmness	Score
NOT FIRM SKIN Inelastic skin and characterized by a strong loss of tone. The skin appears completely thinned like emptied, not dense and the tissues appear clearly relaxed. The skin has bad resistance to pinching and pulling, as well as a poor elastic recovery after traction.	1
NOT VERY FIRM SKIN Poorly elastic skin and characterized by an evident loss of tone. The skin appears thinned and less dense in some areas; the tissues start to relax. The skin has poor resistance to pinching and pulling, as well as a poor elastic recovery after traction.	2
SUFFICIENTLY FIRM SKIN Sufficiently elastic skin and characterized by a medium tone. The skin appears sufficiently full, plump and dense and the tissues appear slightly relaxed. The skin has sufficient resistance to pinching and pulling; the elastic recovery after traction is quite good.	3
FIRM SKIN Elastic skin and characterized by a good tone. The skin appears full, plump and the tissues don't appear relaxed. The skin has good resistance to pinching and pulling; the elastic recovery after traction is good.	4
VERY FIRM SKIN Elastic skin and characterized by an excellent tone. The skin appears full, plump and the tissues don't appear relaxed. The skin has an excellent resistance to pinching and pulling; the elastic recovery after traction is excellent.	5

1.7.7 Digital macrophotography

Pictures of the treated area (décolleté) are acquired by means of a digital camera. Best cases (3 subjects) are reported in annex 1.

1.7.8. Self-assessment

After 28 days of product use (T28) and at the end of the study (T56) volunteers are asked to express their personal opinion on product efficacy and properties by answering to a questionnaire.

1.8. Results and Statistics

1.8.1 Results

The Results are reported in their respective units in tables.

- 1) The mean values are calculated as:

$$m = \frac{\sum_{i=1}^n P_i}{n} \quad [1]$$

where:

n is the number of subjects who ended the study

P is the value of the parameter to be analyzed.

- 2) The mean standard error is calculated as:

$$SEM = \frac{\sqrt{\frac{\sum_{i=1}^n (P_i^2) - \frac{(\sum_{i=1}^n P_i)^2}{n}}{(n-1)}}}{\sqrt{n}} \quad [2]$$

- 3) The mean percentage variations were calculated as:

$$\overline{Var(\%)} = \frac{\sum_{i=1}^n \frac{P_i - P_0}{P_0}}{n} \quad [3]$$

where

P₀ is the value of the parameter to be analyzed at T₀;

P_i is the value of the parameter to be analyzed at monitored experimental times.

All the calculations are done using a Microsoft® Excel.

The results of self-assessment questionnaire are calculated as percentage (%) of subjects who assigned a particular judgment (among those proposed). For each question, the number of subjects related to each judgment is counted → (number of subjects) and then divided by the total number of subjects → % of answers.



1.8.2. Statistical analysis

The instrumental data are submitted to 2-way Student's test t for paired data. while clinical data are submitted to Wilcoxon signed test (intra-group analysis vs T0). The variation is considered statistically significant when the p value is <0.05. Statistical clinical analysis is carried out using NCSS 10 – PROFESSIONAL while instrumental statistical analysis is carried out by means of a Microsoft® Excel worksheet.

The variation is considered statistically significant when p value is <0.05. The statistical analysis foresees the comparison vs T0.

1.8.3. Interpretation of results

The study here above reported was designed to demonstrate the test product claim(s) in the current framework proposed by Commission Regulation (EU) No 655/2013. Endpoints are measured using techniques currently accepted in the cosmetic field while biases are minimized by procedure(s) standardization according to ISO 9001 Quality Management System. Data are analyzed and interpreted by skilled technician according to both descriptive and inferential statistical analysis procedures. Due to the lack of reference values in the cosmetic field, statistical significance (for instrumental analysis) and percentage of subjects showing an effect (for clinical/sensorial endpoints) are the primary criterion to evaluate the correspondence between the proposed claim(s) and the study output(s). In particular Intragroup (vs. T0) or intergroup (eg. active vs. placebo, treated vs non treated) statistical analysis criterion to reject the null hypothesis (no product effect) is set at $p < 0.05$. For clinical evaluations, the positive effect of the product on the measured parameter is confirmed if more than 50% of the subjects register an improvement. Finally, for the self-assessment questionnaires, the performance and the pleasantness of the product must be perceived by at least 60% of the subjects. Whenever reference values or threshold values exist those values are used to validate product claim(s).

1.9. Start/end date of study

The table here below reports date of beginning and end of the study.

Start date	End date
17/12/2021	31/03/2022

1.10. Report change record

Table here below reports the change log of all approved changes made to the document that make up the course after initial approval.

Rev. no	Date	Description
00	01/04/2022	First release

- The results of the study reported in this document are only referred to the tested samples and the specific experimental conditions.
- Any part of this report can only be reproduced with the consent of Complife s.r.l.
- A copy of this report is kept on file at Complife s.r.l.
- Both the informed consent and the information forms are kept on file at Complife s.r.l. for 10 years after the date of issue of the report

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SUBJECTS DEMOGRAPHY

n	Vol ID	Age
01	P6020L	48
02	S6370P	54
03	B5098A	55
04	L5748M	54
05	C5641B	51
06	G5156C	45
07	M5192P	41
08	M5605I	56
09	B6016T	50
10	F5103R	50
11	S5673M	56
12	I6083F	48
13	C4970G	55
14	G0656C	54
15	T3581R	51
16	R2227S	53
17	C1167R	56
18	F4202C	55
19	P2591C	54
20	Q2899C	54
21	F4631M	47
22	A0004R	49
23	P0286G	54
24	D0668A	55
25	M1451M	53
Mean		52
Min		41
Max		56

Comment: Data at T28 refer to 24 out 25 enrolled subjects; vol n° 22 A0004R lost T28 follow-up due to precautional Covid-19 quarantine. This subjects is report in the following T28 table as DO.



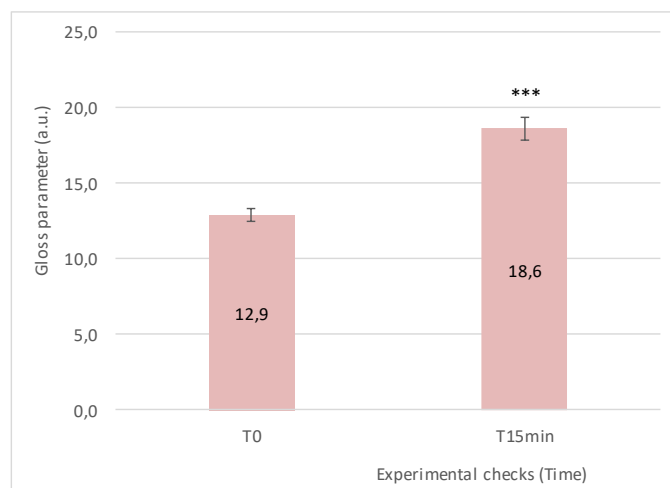
RESULTS

SKIN RADIANCE – GLOSS PARAMETER on décolleté area

TABLE 1. The table below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as arbitrary units (a.u.).

n	Vol ID	T0	T15min	% VARIATION VS. T0
01	P6020L	8,58	10,98	28,0%
02	S6370P	18,92	22,36	18,2%
03	B5098A	14,17	15,17	7,1%
04	L5748M	10,21	15,26	49,5%
05	C5641B	14,28	14,18	-0,7%
06	G5156C	12,37	16,68	34,8%
07	M5192P	12,94	16,66	28,7%
08	M5605I	10,28	14,25	38,6%
09	B6016T	11,31	21,65	91,4%
10	F5103R	14,92	18,61	24,7%
11	S5673M	11,11	16,46	48,2%
12	I6083F	13,20	26,37	99,8%
13	C4970G	12,77	24,31	90,4%
14	G0656C	14,98	19,44	29,8%
15	T3581R	16,38	19,69	20,2%
16	R2227S	13,21	17,93	35,7%
17	C1167R	11,81	16,58	40,4%
18	F4202C	13,24	15,29	15,5%
19	P2591C	12,79	16,99	32,8%
20	Q2899C	10,97	25,30	130,6%
21	F4631M	10,83	24,08	122,3%
22	A0004R	13,29	20,11	51,3%
23	P0286G	10,84	19,02	75,5%
24	D0668A	15,70	20,99	33,7%
25	M1451M	13,75	17,33	26,0%
Mean		12,9	18,6	46,9%
SEM		0,5	0,8	
t-test vs. T0		--	0,000	Min -0,7% Max 130,6%

GRAPH 1. The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



COMMENT: a statistically significant improvement of gloss parameter (related to skin brightness) is recorded on décolleté area after the first product application.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

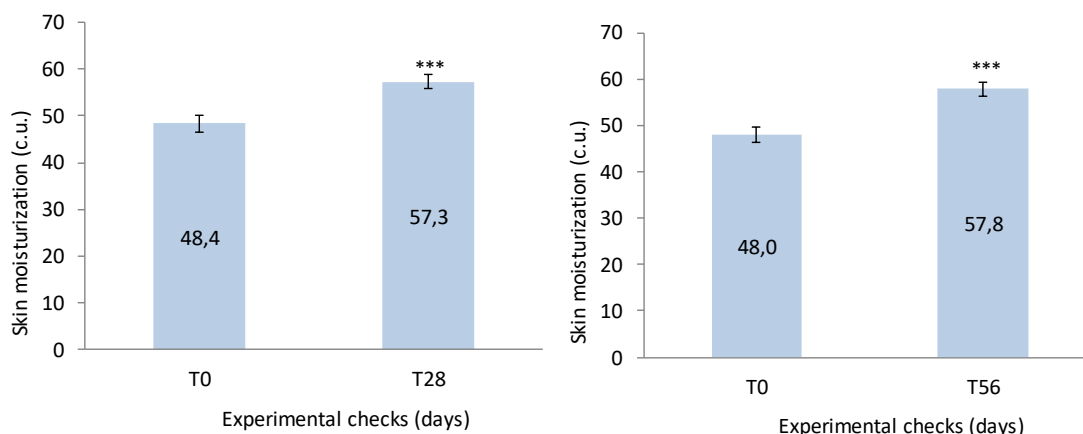


SKIN MOISTURIZATION on décolleté area

TABLES 2a/b. The tables below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as corneometric units (a.u.). Data at T28 refers to 24 out of 25 subjects.

n.	Vol ID	T0	T28	T28	n.	Vol ID	T0	T56	T56
01	P6020L	66,7	68,8	3,1%	01	P6020L	66,7	67,3	0,9%
02	S6370P	28,1	40,9	45,6%	02	S6370P	28,1	36,3	29,2%
03	B5098A	49,1	60,9	24,0%	03	B5098A	49,1	60,8	23,8%
04	L5748M	43,9	48,2	9,8%	04	L5748M	43,9	47,8	8,9%
05	C5641B	47,3	65,2	37,8%	05	C5641B	47,3	62,0	31,1%
06	G5156C	39,3	57,4	46,1%	06	G5156C	39,3	58,3	48,3%
07	M5192P	60,1	54,6	-9,2%	07	M5192P	60,1	63,9	6,3%
08	M5605I	46,8	65,3	39,5%	08	M5605I	46,8	62,4	33,3%
09	B6016T	58,1	68,2	17,4%	09	B6016T	58,1	69,7	20,0%
10	F5103R	42,2	56,0	32,7%	10	F5103R	42,2	56,2	33,2%
11	S5673M	34,2	48,8	42,7%	11	S5673M	34,2	49,2	43,9%
12	I6083F	41,5	52,4	26,3%	12	I6083F	41,5	52,7	27,0%
13	C4970G	48,7	54,3	11,5%	13	C4970G	48,7	55,9	14,8%
14	G0656C	59,4	64,8	9,1%	14	G0656C	59,4	64,2	8,1%
15	T3581R	43,1	50,6	17,4%	15	T3581R	43,1	56,3	30,6%
16	R2227S	53,3	58,7	10,1%	16	R2227S	53,3	61,0	14,4%
17	C1167R	55,1	59,6	8,2%	17	C1167R	55,1	58,7	6,5%
18	F4202C	47,8	54,2	13,4%	18	F4202C	47,8	53,4	11,7%
19	P2591C	47,4	51,2	8,0%	19	P2591C	47,4	60,7	28,1%
20	Q2899C	44,0	53,9	22,5%	20	Q2899C	44,0	54,2	23,2%
21	F4631M	52,6	64,3	22,2%	21	F4631M	52,6	65,1	23,8%
22	A0004R	[39,8]	DO	---	22	A0004R	39,8	45,3	13,8%
23	P0286G	48,2	54,7	13,5%	23	P0286G	48,2	59,4	23,2%
24	D0668A	54,0	61,0	13,0%	24	D0668A	54,0	63,8	18,1%
25	M1451M	49,9	62,2	24,6%	25	M1451M	49,9	61,4	23,0%
Mean		48,4	57,3	20,4%	Mean		48,0	57,8	21,8%
SEM		1,7	1,4		SEM		1,7	1,5	
TEST:t vs T0		--	0,000		TEST:t vs T0		--	0,000	
				Max 46,1%					Max 48,3%
				Min -9,2%					Min 0,9%

GRAPH 2a/b. The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



COMMENT: a statistically significant improvement of skin moisturization is recorded on décolleté area at each experimental monitored check.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

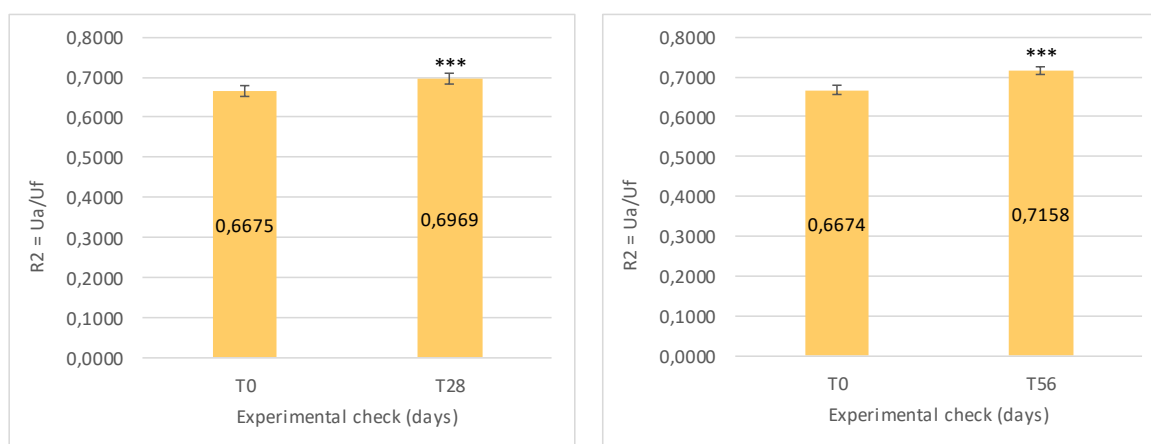


SKIN ELASTICITY – R2 PARAMETER on décolleté area

TABLE 3a/b The tables below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as Ua/Uf. Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	T28	n	Vol ID	T0	T56	T56
01	P6020L	0,6060	0,5950	-1,8%	01	P6020L	0,6060	0,6880	13,5%
02	S6370P	0,6020	0,6120	1,7%	02	S6370P	0,6020	0,6107	1,4%
03	B5098A	0,6870	0,6850	-0,3%	03	B5098A	0,6870	0,6960	1,3%
04	L5748M	0,6770	0,6870	1,5%	04	L5748M	0,6770	0,6790	0,3%
05	C5641B	0,6610	0,7290	10,3%	05	C5641B	0,6610	0,6880	4,1%
06	G5156C	0,6910	0,7640	10,6%	06	G5156C	0,6910	0,7140	3,3%
07	M5192P	0,6110	0,6460	5,7%	07	M5192P	0,6110	0,6790	11,1%
08	M5605I	0,5960	0,6240	4,7%	08	M5605I	0,5960	0,6740	13,1%
09	B6016T	0,6330	0,6660	5,2%	09	B6016T	0,6330	0,6720	6,2%
10	F5103R	0,5920	0,6830	15,4%	10	F5103R	0,5920	0,7300	23,3%
11	S5673M	0,6050	0,6010	-0,7%	11	S5673M	0,6050	0,6040	-0,2%
12	I6083F	0,7870	0,7980	1,4%	12	I6083F	0,7870	0,7850	-0,3%
13	C4970G	0,6100	0,6630	8,7%	13	C4970G	0,6100	0,7060	15,7%
14	G0656C	0,6426	0,6744	4,9%	14	G0656C	0,6426	0,7537	17,3%
15	T3581R	0,6571	0,6737	2,5%	15	T3581R	0,6571	0,7061	7,5%
16	R2227S	0,6707	0,7260	8,2%	16	R2227S	0,6707	0,7414	10,5%
17	C1167R	0,6977	0,7322	4,9%	17	C1167R	0,6977	0,7125	2,1%
18	F4202C	0,7420	0,7510	1,2%	18	F4202C	0,7420	0,7620	2,7%
19	P2591C	0,6980	0,6990	0,1%	19	P2591C	0,6980	0,7320	4,9%
20	Q2899C	0,7762	0,8005	3,1%	20	Q2899C	0,7762	0,8210	5,8%
21	F4631M	0,6510	0,7104	9,1%	21	F4631M	0,6510	0,6923	6,3%
22	A0004R	[0,664]	DO	---	22	A0004R	0,6640	0,7642	15,1%
23	P0286G	0,8268	0,8290	0,3%	23	P0286G	0,8268	0,8452	2,2%
24	D0668A	0,7000	0,7266	3,8%	24	D0668A	0,7000	0,7319	4,6%
25	M1451M	0,6010	0,6500	8,2%	25	M1451M	0,6010	0,7059	17,5%
Mean		0,6675	0,6969	4,5%	Mean		0,6674	0,7158	7,6%
SEM		0,0135	0,0128		SEM		0,0130	0,0112	
t-test vs. T0		--	0,000		t-test vs. T0		--	0,000	
				Min -1,8%					Min -0,3%
				Max 15,4%					Max 23,3%

GRAPHS 3a,b The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



Comment a statistically significant increase of of R2 parameter is recorded on décolleté area at each experimental monitored check. An increase of this parameter indicates an improvement of skin elasticity.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

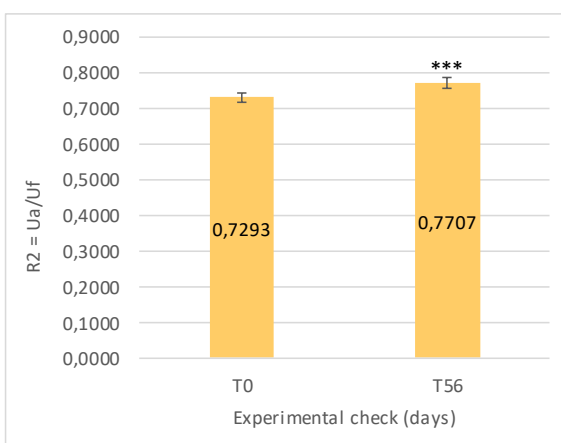
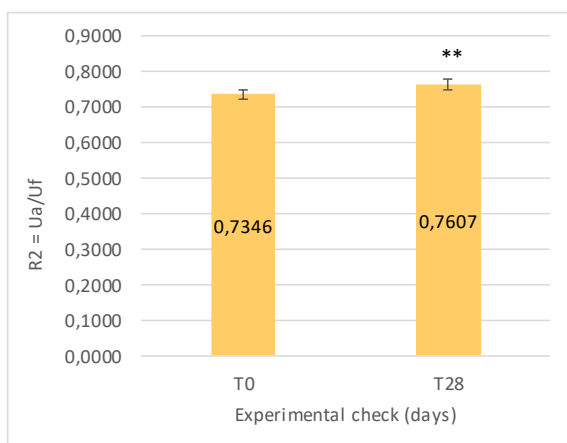


SKIN ELASTICITY – R2 PARAMETER on internal upper arm area

TABLE 4a/b The tables below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as Ua/Uf. Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	% VARIATION VS. T0	n	Vol ID	T0	T56	% VARIATION VS. T0
01	P6020L	0,7870	0,7950	1,0%	01	P6020L	0,7870	0,7880	0,1%
02	S6370P	0,7360	0,7420	0,8%	02	S6370P	0,7360	0,7260	-1,4%
03	B5098A	0,6440	0,7530	16,9%	03	B5098A	0,6440	0,7820	21,4%
04	L5748M	0,7110	0,7100	-0,1%	04	L5748M	0,7110	0,7070	-0,6%
05	C5641B	0,7470	0,7650	2,4%	05	C5641B	0,7470	0,7590	1,6%
06	G5156C	0,7380	0,7170	-2,8%	06	G5156C	0,7380	0,7540	2,2%
07	M5192P	0,6510	0,6350	-2,5%	07	M5192P	0,6510	0,7070	8,6%
08	M5605I	0,6480	0,6440	-0,6%	08	M5605I	0,6480	0,6990	7,9%
09	B6016T	0,7240	0,7280	0,6%	09	B6016T	0,7240	0,7200	-0,6%
10	F5103R	0,6990	0,8040	15,0%	10	F5103R	0,6990	0,8400	20,2%
11	S5673M	0,6250	0,6170	-1,3%	11	S5673M	0,6250	0,6440	3,0%
12	I6083F	0,8750	0,8850	1,1%	12	I6083F	0,8750	0,8830	0,9%
13	C4970G	0,6230	0,6240	0,2%	13	C4970G	0,6230	0,6280	0,8%
14	G0656C	0,6966	0,7093	1,8%	14	G0656C	0,6966	0,7324	5,1%
15	T3581R	0,8240	0,9012	9,4%	15	T3581R	0,8240	0,8873	7,7%
16	R2227S	0,8108	0,8398	3,6%	16	R2227S	0,8108	0,8528	5,2%
17	C1167R	0,7845	0,8114	3,4%	17	C1167R	0,7845	0,8220	4,8%
18	F4202C	0,7100	0,7610	7,2%	18	F4202C	0,7100	0,8024	13,0%
19	P2591C	0,7300	0,7300	0,0%	19	P2591C	0,7300	0,7490	2,6%
20	Q2899C	0,7645	0,8189	7,1%	20	Q2899C	0,7645	0,8969	17,3%
21	F4631M	0,7656	0,8195	7,0%	21	F4631M	0,7656	0,7997	4,5%
22	A0004R	[0,603]	DO	---	22	A0004R	0,6030	0,6510	8,0%
23	P0286G	0,8140	0,8424	3,5%	23	P0286G	0,8140	0,8426	3,5%
24	D0668A	0,7760	0,7968	2,7%	24	D0668A	0,7760	0,7964	2,6%
25	M1451M	0,7460	0,8080	8,3%	25	M1451M	0,7460	0,7987	7,1%
Mean		0,7346	0,7607	3,5%	Mean		0,7293	0,7707	5,8%
SEM		0,0135	0,0161		SEM		0,0139	0,0151	
t-test vs. T0		--	0,002		t-test vs. T0		--	0,000	
		Min	Max				Min	Max	

GRAPHS 4a,b The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



Comment a statistically significant increase of of R2 parameter is recorded on internal upper arm area at each experimental monitored check. An increase of this parameter indicates an improvement of skin elasticity.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

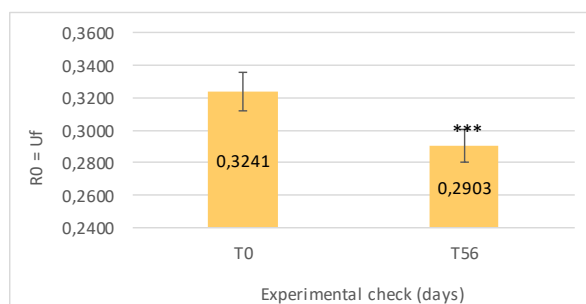
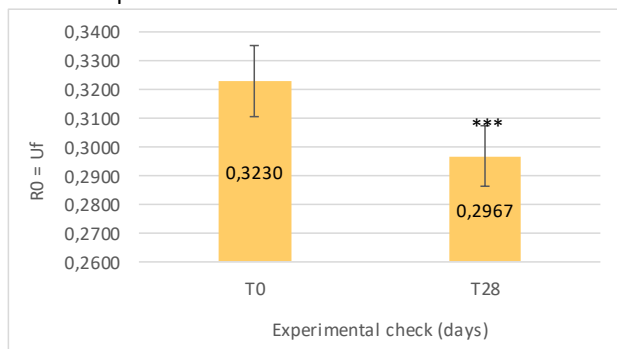


SKIN FIRMNESS – R0 PARAMETER on décolleté area

TABLE 5a/b The tables below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as Uf. Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	% VARIATION VS. T0	n	Vol ID	T0	T56	% VARIATION VS. T0
01	P6020L	0,3070	0,2930	-4,6%	01	P6020L	0,3070	0,2730	-11,1%
02	S6370P	0,3440	0,3240	-5,8%	02	S6370P	0,3440	0,3140	-8,7%
03	B5098A	0,3010	0,2840	-5,6%	03	B5098A	0,3010	0,2880	-4,3%
04	L5748M	0,3230	0,2870	-11,1%	04	L5748M	0,3230	0,2650	-18,0%
05	C5641B	0,2820	0,2730	-3,2%	05	C5641B	0,2820	0,2750	-2,5%
06	G5156C	0,3420	0,3100	-9,4%	06	G5156C	0,3420	0,3030	-11,4%
07	M5192P	0,2660	0,2660	0,0%	07	M5192P	0,2660	0,2570	-3,4%
08	M5605I	0,3260	0,3090	-5,2%	08	M5605I	0,3260	0,2480	-23,9%
09	B6016T	0,2740	0,2400	-12,4%	09	B6016T	0,2740	0,2400	-12,4%
10	F5103R	0,3060	0,2520	-17,6%	10	F5103R	0,3060	0,2610	-14,7%
11	S5673M	0,3090	0,2670	-13,6%	11	S5673M	0,3090	0,2630	-14,9%
12	I6083F	0,3020	0,2900	-4,0%	12	I6083F	0,3020	0,3150	4,3%
13	C4970G	0,2210	0,2280	3,2%	13	C4970G	0,2210	0,2130	-3,6%
14	G0656C	0,3190	0,2580	-19,1%	14	G0656C	0,3190	0,2410	-24,5%
15	T3581R	0,3470	0,3030	-12,7%	15	T3581R	0,3470	0,3100	-10,7%
16	R2227S	0,3080	0,2920	-5,2%	16	R2227S	0,3080	0,2800	-9,1%
17	C1167R	0,5170	0,4530	-12,4%	17	C1167R	0,5170	0,4500	-13,0%
18	F4202C	0,4240	0,3920	-7,5%	18	F4202C	0,4240	0,3810	-10,1%
19	P2591C	0,2980	0,2650	-11,1%	19	P2591C	0,2980	0,2620	-12,1%
20	Q2899C	0,4200	0,3860	-8,1%	20	Q2899C	0,4200	0,3680	-12,4%
21	F4631M	0,2550	0,2590	1,6%	21	F4631M	0,2550	0,2530	-0,8%
22	A0004R	[0,3500]	DO	---	22	A0004R	0,3500	0,3180	-9,1%
23	P0286G	0,3280	0,3100	-5,5%	23	P0286G	0,3280	0,3090	-5,8%
24	D0668A	0,3080	0,2860	-7,1%	24	D0668A	0,3080	0,2870	-6,8%
25	M1451M	0,3260	0,2940	-9,8%	25	M1451M	0,3260	0,2840	-12,9%
Mean		0,3230	0,2967	-7,8%	Mean		0,3241	0,2903	-10,1%
SEM		0,0123	0,0104	-19,1%	SEM		0,0119	0,0101	-24,5%
t-test vs. T0		--	0,000	3,2%	t-test vs. T0		--	0,000	4,3%

GRAPHS 5a,b The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



Comment a statistically significant decrease of R0 parameter is recorded on décolleté area at each experimental monitored check. A decrease of this parameter indicates an improvement of skin firmness and for marketing purposes obtained variations can be expressed in absolute values as an improvement of skin firmness.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

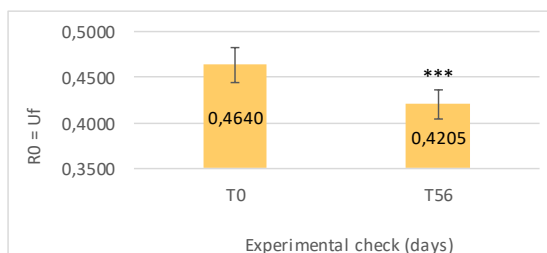
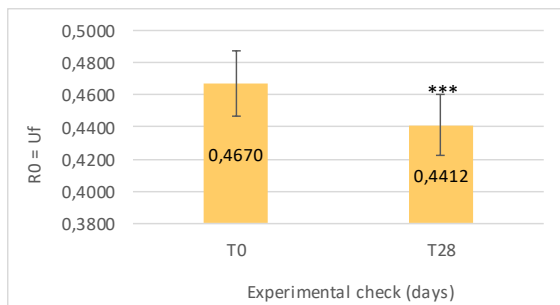


SKIN FIRMNESS – R0 PARAMETER on internal upper arm area

TABLE 6a/b The tables below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as Uf. Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	% VARIATION VS. T0	n	Vol ID	T0	T56	% VARIATION VS. T0
01	P6020L	0,5190	0,4990	-3,9%	01	P6020L	0,5190	0,4930	-5,0%
02	S6370P	0,5150	0,5080	-1,4%	02	S6370P	0,5150	0,5070	-1,6%
03	B5098A	0,6730	0,5990	-11,0%	03	B5098A	0,6730	0,5050	-25,0%
04	L5748M	0,5580	0,5140	-7,9%	04	L5748M	0,5580	0,5000	-10,4%
05	C5641B	0,4760	0,4170	-12,4%	05	C5641B	0,4760	0,4030	-15,3%
06	G5156C	0,5300	0,4390	-17,2%	06	G5156C	0,5300	0,4150	-21,7%
07	M5192P	0,2330	0,2180	-6,4%	07	M5192P	0,2330	0,2130	-8,6%
08	M5605I	0,5630	0,5650	0,4%	08	M5605I	0,5630	0,5450	-3,2%
09	B6016T	0,3880	0,4010	3,4%	09	B6016T	0,3880	0,4010	3,4%
10	F5103R	0,4930	0,4640	-5,9%	10	F5103R	0,4930	0,4290	-13,0%
11	S5673M	0,4500	0,4190	-6,9%	11	S5673M	0,4500	0,4550	1,1%
12	I6083F	0,5440	0,5550	2,0%	12	I6083F	0,5440	0,4950	-9,0%
13	C4970G	0,3570	0,3520	-1,4%	13	C4970G	0,3570	0,3500	-2,0%
14	G0656C	0,3790	0,3440	-9,2%	14	G0656C	0,3790	0,3400	-10,3%
15	T3581R	0,4660	0,4250	-8,8%	15	T3581R	0,4660	0,4260	-8,6%
16	R2227S	0,4150	0,3870	-6,7%	16	R2227S	0,4150	0,3880	-6,5%
17	C1167R	0,4150	0,4000	-3,6%	17	C1167R	0,4150	0,3980	-4,1%
18	F4202C	0,3710	0,3690	-0,5%	18	F4202C	0,3710	0,3400	-8,4%
19	P2591C	0,3600	0,3000	-16,7%	19	P2591C	0,3600	0,3000	-16,7%
20	Q2899C	0,5830	0,5610	-3,8%	20	Q2899C	0,5830	0,5140	-11,8%
21	F4631M	0,5120	0,4930	-3,7%	21	F4631M	0,5120	0,4380	-14,5%
22	A0004R	[0,3900]	---	DO	22	A0004R	0,3900	0,3620	-7,2%
23	P0286G	0,5860	0,5420	-7,5%	23	P0286G	0,5860	0,5460	-6,8%
24	D0668A	0,4420	0,4380	-0,9%	24	D0668A	0,4420	0,3930	-11,1%
25	M1451M	0,3810	0,3800	-0,3%	25	M1451M	0,3810	0,3570	-6,3%
Mean		0,4670	0,4412	-5,4%	Mean		0,4640	0,4205	-8,9%
SEM		0,0200	0,0189	-17,2%	SEM		0,0194	0,0163	-25,0%
t-test vs. T0		--	0,000	3,4%	t-test vs. T0		--	0,000	3,4%

GRAPHS 6a,b The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



Comment a statistically significant decrease of R0 parameter is recorded on internal upper arm area at each experimental monitored check. A decrease of this parameter indicates an improvement of skin firmness and for marketing purposes obtained variations can be expressed in absolute values as an improvement of skin firmness.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.



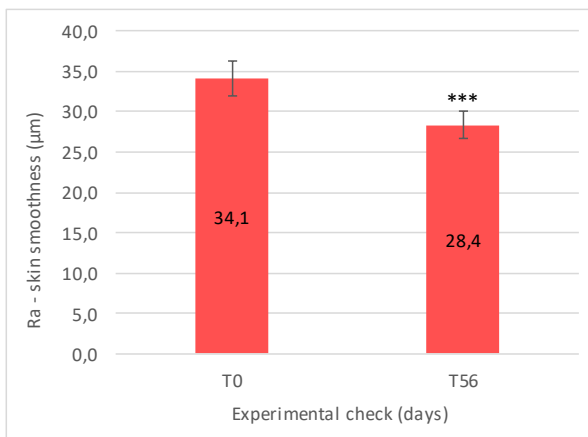
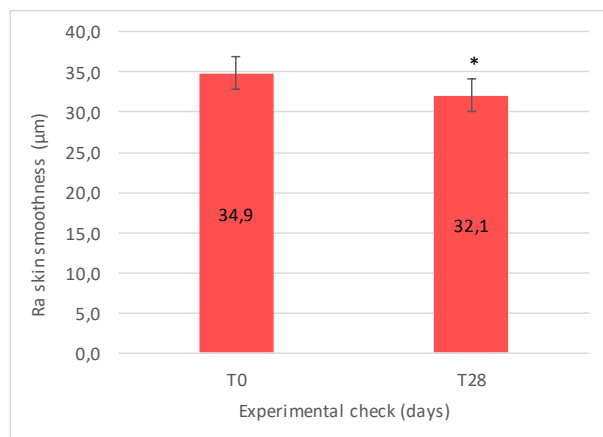
SKIN PROFILOMETRY – Ra on décolleté area

TABLES 7a/b. The table below reports the data obtained for each subject taking part in the study for Ra parameter. Data are expressed as μm . Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	% VARIATION VS. T0	n	Vol ID	T0	T56	% VARIATION VS. T0
01	P6020L	41,1	38,8	-5,6%	01	P6020L	42,1	32,0	-24,1%
02	S6370P	42,2	42,8	1,4%	02	S6370P	42,8	38,7	-9,5%
03	B5098A	42,5	30,6	-28,0%	03	B5098A	54,4	36,4	-33,0%
04	L5748M	44,9	42,3	-5,8%	04	L5748M	41,8	36,4	-12,9%
05	C5641B	34,2	36,2	5,8%	05	C5641B	31,7	31,1	-1,9%
06	G5156C	39,5	41,1	4,1%	06	G5156C	41,3	33,5	-18,8%
07	M5192P	49,7	49,4	-0,6%	07	M5192P	47,3	41,5	-12,2%
08	M5605I	49,3	40,0	-18,9%	08	M5605I	51,2	40,0	-22,0%
09	B6016T	42,3	40,4	-4,5%	09	B6016T	41,3	33,8	-18,3%
10	F5103R	40,7	45,5	11,8%	10	F5103R	39,6	36,3	-8,4%
11	S5673M	36,9	40,2	8,9%	11	S5673M	36,5	30,7	-16,0%
12	I6083F	33,9	25,9	-23,6%	12	I6083F	33,5	24,2	-27,7%
13	C4970G	47,5	35,3	-25,7%	13	C4970G	47,9	37,7	-21,4%
14	G0656C	20,1	18,5	-8,0%	14	G0656C	19,9	20,1	0,9%
15	T3581R	29,7	25,1	-15,5%	15	T3581R	25,9	20,1	-22,3%
16	R2227S	31,9	22,5	-29,5%	16	R2227S	30,4	22,4	-26,3%
17	C1167R	26,3	19,9	-24,3%	17	C1167R	26,3	20,2	-23,0%
18	F4202C	42,0	34,2	-18,6%	18	F4202C	40,7	31,4	-22,9%
19	P2591C	14,5	12,6	-13,1%	19	P2591C	15,4	13,7	-10,7%
20	Q2899C	22,5	21,6	-4,0%	20	Q2899C	22,8	19,9	-12,5%
21	F4631M	23,3	24,3	4,3%	21	F4631M	22,8	22,6	-0,9%
22	A0004R	NA	DO	---	22	A0004R	25,9	25,1	-3,1%
23	P0286G	18,2	20,4	12,1%	23	P0286G	16,9	16,9	0,3%
24	D0668A	25,7	28,3	10,1%	24	D0668A	23,8	22,0	-7,5%
25	M1451M	38,2	34,8	-8,9%	25	M1451M	29,6	22,6	-23,7%
Mean		34,9	32,1	-7,3%	Mean		34,1	28,4	-15,1%
SEM		2,1	2,0		SEM		2,2	1,6	
t-test vs. T0		--	0,011	Max -29,5% Min 12,1%	t-test vs. T0		--	0,000	Max -33,0% Min 0,9%

NA: NOT ANALYZED

GRAPHS 7a/b. The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



COMMENT: a statistically significant decrease of Ra parameter on décolleté area is recorded at each experimental monitored check. A decrease of Ra parameter indicates an improvement of skin smoothness; for marketing purposes obtained values can be expressed in absolute values as an improvement of skin smoothness.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Primos instrumental analysis foresees the overlay and measurement of pictures acquired at different timepoints. The analysis procedure carried out with different pictures can determine a slightly different overlay and this explains the difference between T0 values.



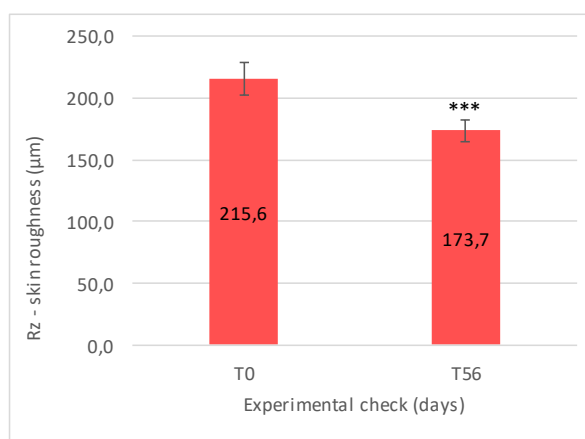
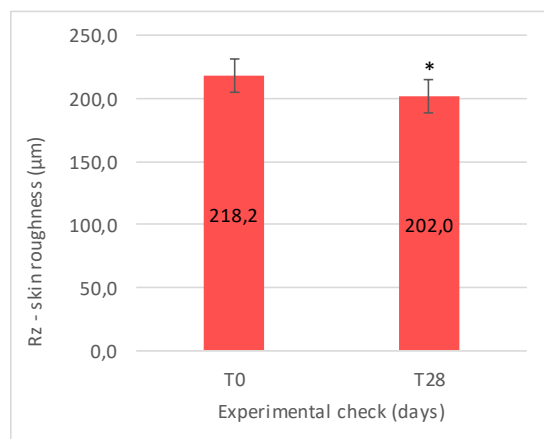
SKIN PROFILOMETRY – Rz parameter on décolleté area

TABLES 7c/d. The table below reports the data obtained for each subject taking part in the study for Rz parameter. Data are expressed as μm . Data at T28 refers to 24 out of 25 subjects.

n	Vol ID	T0	T28	% VARIATION VS. T0	n	Vol ID	T0	T56	% VARIATION VS. T0
01	P6020L	250,6	245,0	-2,2%	01	P6020L	258,0	199,7	-22,6%
02	S6370P	260,4	289,0	11,0%	02	S6370P	267,2	250,7	-6,2%
03	B5098A	266,7	201,2	-24,6%	03	B5098A	266,8	182,7	-31,5%
04	L5748M	272,3	255,5	-6,2%	04	L5748M	263,0	208,0	-20,9%
05	C5641B	218,4	238,3	9,1%	05	C5641B	219,1	199,8	-8,8%
06	G5156C	248,6	258,9	4,1%	06	G5156C	247,8	242,1	-2,3%
07	M5192P	320,5	322,0	0,5%	07	M5192P	315,2	240,6	-23,7%
08	M5605I	300,7	255,3	-15,1%	08	M5605I	306,3	196,9	-35,7%
09	B6016T	260,9	257,8	-1,2%	09	B6016T	256,4	189,2	-26,2%
10	F5103R	268,3	291,4	8,6%	10	F5103R	258,5	184,5	-28,6%
11	S5673M	266,0	255,1	-4,1%	11	S5673M	262,6	190,1	-27,6%
12	I6083F	236,1	152,0	-35,6%	12	I6083F	243,3	143,7	-40,9%
13	C4970G	291,0	227,6	-21,8%	13	C4970G	299,4	186,6	-37,7%
14	G0656C	135,2	126,9	-6,1%	14	G0656C	131,2	123,9	-5,6%
15	T3581R	224,0	190,0	-15,2%	15	T3581R	231,3	192,4	-16,8%
16	R2227S	187,0	137,9	-26,3%	16	R2227S	184,3	151,6	-17,7%
17	C1167R	156,8	118,6	-24,4%	17	C1167R	161,0	119,4	-25,8%
18	F4202C	235,2	174,5	-25,8%	18	F4202C	233,0	165,8	-28,8%
19	P2591C	97,9	91,7	-6,3%	19	P2591C	97,6	98,5	1,0%
20	Q2899C	123,8	123,9	0,1%	20	Q2899C	125,1	124,4	-0,6%
21	F4631M	136,4	148,4	8,8%	21	F4631M	131,3	136,4	3,9%
22	A0004R	NA	DO	---	22	A0004R	146,7	149,1	1,6%
23	P0286G	106,7	120,4	12,8%	23	P0286G	104,9	105,5	0,6%
24	D0668A	145,6	156,0	7,1%	24	D0668A	149,4	160,3	7,3%
25	M1451M	228,8	211,1	-7,7%	25	M1451M	229,9	200,1	-13,0%
Mean		218,2	202,0	-6,7%	Mean		215,6	173,7	-16,3%
SEM		13,4	13,4		SEM		13,2	8,4	
t-test vs. T0		--	0,019		t-test vs. T0		--	0,000	
				Max -35,6%					Max -40,9%
				Min 12,8%					Min 7,3%

NA: NOT ANALYZED

GRAPHS 7c/d. The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



COMMENT: a statistically significant decrease of Rz parameter on décolleté area is recorded at each experimental monitored check. A decrease of Rz parameter indicates an improvement of skin roughness; for marketing purposes obtained values can be expressed in absolute values as an improvement of skin roughness.

Note: the intra-group statistical analysis (vs. T0) is reported above the error bar in black color.

Legend: * p<0.05; ** p<0.01; *** p<0.001.

Primos instrumental analysis foresees the overlay and measurement of pictures acquired at different timepoints. The analysis procedure carried out with different pictures can determine a slightly different overlay and this explains the difference between T0 values.

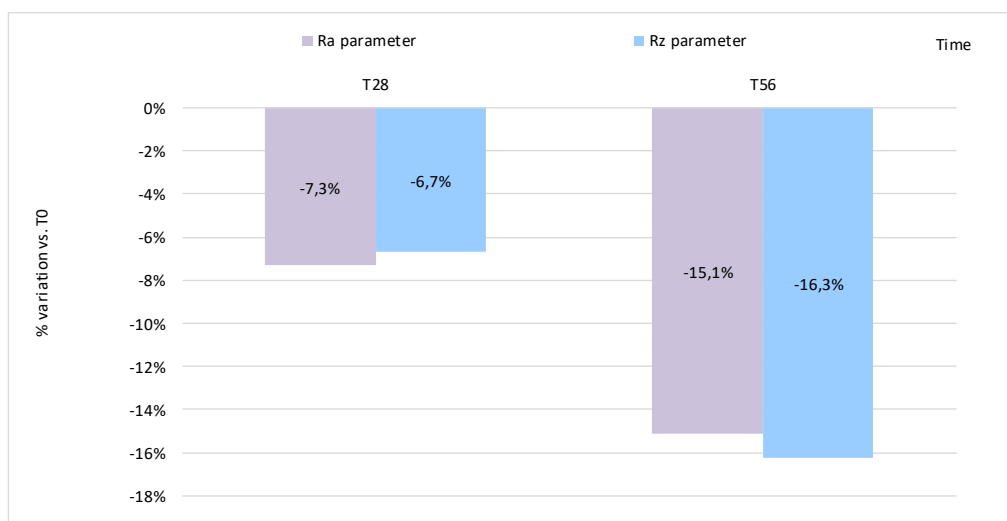


SKIN PROFILOMETRY – Summary

TABLE 7e. The table below summarizes the mean % variation, min/max values and statistical analysis (p-value) obtained for skin profilometry parameters at each experimental monitored check. Data at T28 refers to 24 out of 25 subjects.

		T28	T56
Ra parameter - skin smoothness	Mean of the % variation vs. T0	-7,3%	-15,1%
	t-test vs. T0 (p-value)	0,011	0,000
	MAX (maximum variation)	-29,5%	-33,0%
	MIN (minimum variation)	12,1%	0,9%
Rz parameter - skin roughness	Mean of the % variation vs. T0	-6,7%	-16,3%
	t-test vs. T0 (p-value)	0,019	0,000
	MAX (maximum variation)	-35,6%	-40,9%
	MIN (minimum variation)	12,8%	7,3%

GRAPH 7e. The graph sets out the mean of the percentage variations obtained at each experimental time for skin profilometry parameters.



COMMENT: a statistically significant decrease of Ra and Rz parameter on décolleté area is recorded at each experimental monitored check. A decrease of Ra parameter indicates an improvement of skin smoothness; for marketing purposes obtained values can be expressed in absolute values as an improvement of skin smoothness. A decrease of Rz parameter indicates an improvement of skin roughness; for marketing purposes obtained values can be expressed in absolute values as an improvement of skin roughness.

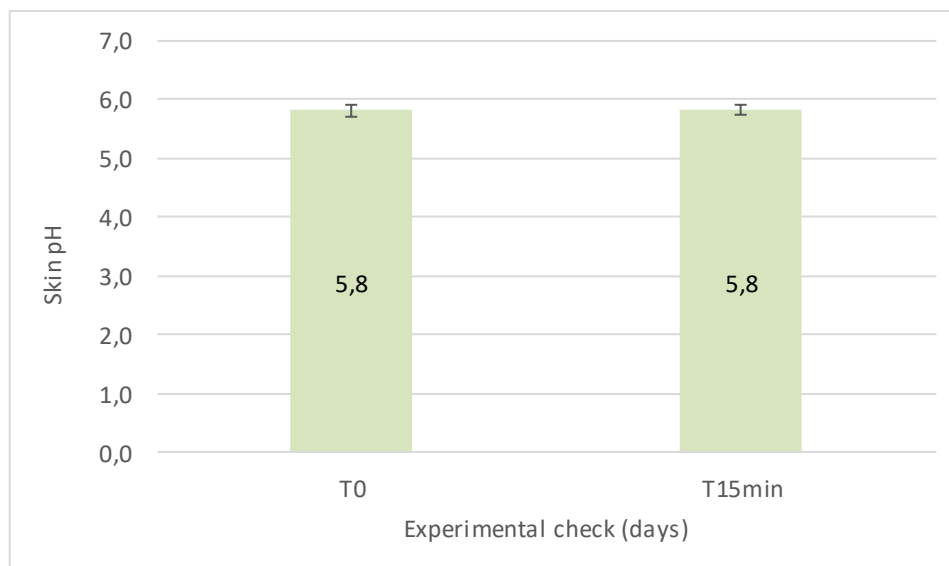


SKIN pH

TABLE 8. The table below reports the data obtained for each subject taking part in the study for the parameter under study. Data are expressed as pH values.

n	Vol ID	T0	T15min
01	P6020L	5,4	5,7
02	S6370P	6,1	5,8
03	B5098A	5,5	5,7
04	L5748M	6,0	6,1
05	C5641B	6,1	5,5
06	G5156C	5,7	5,8
07	M5192P	6,0	5,7
08	M5605I	5,7	5,6
09	B6016T	5,5	5,4
10	F5103R	5,3	5,3
11	S5673M	5,6	5,7
12	I6083F	6,5	6,5
13	C4970G	6,0	6,3
14	G0656C	6,1	6,2
15	T3581R	5,6	5,6
16	R2227S	5,3	5,6
17	C1167R	6,9	6,8
18	F4202C	5,4	5,6
19	P2591C	4,8	5,0
20	Q2899C	6,0	6,1
21	F4631M	5,3	5,3
22	A0004R	6,2	6,3
23	P0286G	6,5	6,4
24	D0668A	5,9	6,1
25	M1451M	5,8	5,8
Mean		5,8	5,8
SEM		0,1	0,1
t-test vs. T0		--	0,645

GRAPH 8. The graph sets out the mean data obtained at each experimental time for the parameter under study. Data are expressed as a mean $\pm$ SEM.



COMMENT: 15 minutes after the first application, tested product doesn't alter the basal skin conditions; pH mean value is unvaried.

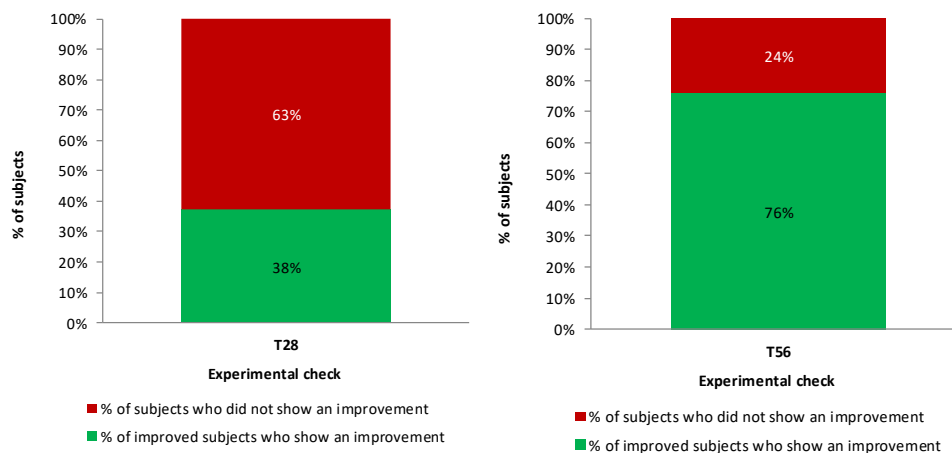


CLINICAL ANALYSIS – SKIN FIRMNESS/TONICITY on décolleté area

TABLES 9a,b The tables report the clinical scores assigned by the experimenter at T0, T28 and T56. Data are expressed according to scores reported in box 3. Data at T28 refers to 24 out of 25 subjects.

n.	Vol ID	T0	T28	n.	Vol ID	T0	T56
01	P6020L	3	3	01	P6020L	3	4
02	S6370P	2	3	02	S6370P	2	3
03	B5098A	3	3	03	B5098A	3	4
04	L5748M	3	3	04	L5748M	3	3
05	C5641B	3	3	05	C5641B	3	3
06	G5156C	3	3	06	G5156C	3	4
07	M5192P	3	3	07	M5192P	3	3
08	M5605I	2	2	08	M5605I	2	3
09	B6016T	3	3	09	B6016T	3	4
10	F5103R	3	3	10	F5103R	3	3
11	S5673M	2	2	11	S5673M	2	3
12	I6083F	3	3	12	I6083F	3	4
13	C4970G	2	3	13	C4970G	2	3
14	G0656C	3	3	14	G0656C	3	4
15	T3581R	2	3	15	T3581R	2	3
16	R2227S	2	3	16	R2227S	2	4
17	C1167R	2	2	17	C1167R	2	3
18	F4202C	2	3	18	F4202C	2	4
19	P2591C	2	3	19	P2591C	2	4
20	Q2899C	2	3	20	Q2899C	2	3
21	F4631M	3	3	21	F4631M	3	3
22	A0004R	[3]	DO	22	A0004R	3	4
23	P0286G	2	3	23	P0286G	2	3
24	D0668A	2	2	24	D0668A	2	2
25	M1451M	2	3	25	M1451M	2	4
Mean		2,5	2,8	Mean		2,5	3,4
SEM		0,1	0,1	SEM		0,1	0,1
Wilcoxon vs. T0		--	0,003	Wilcoxon vs. T0		--	0,000

GRAPHS 9a,b The graphs reports the percentage of subjects related to the effect.



Comment

A clinical and statistically significant improvement of skin firmness/tonicity on décolleté area was observed in 38% of the enrolled subjects at T28 and in 76% of them at T84.

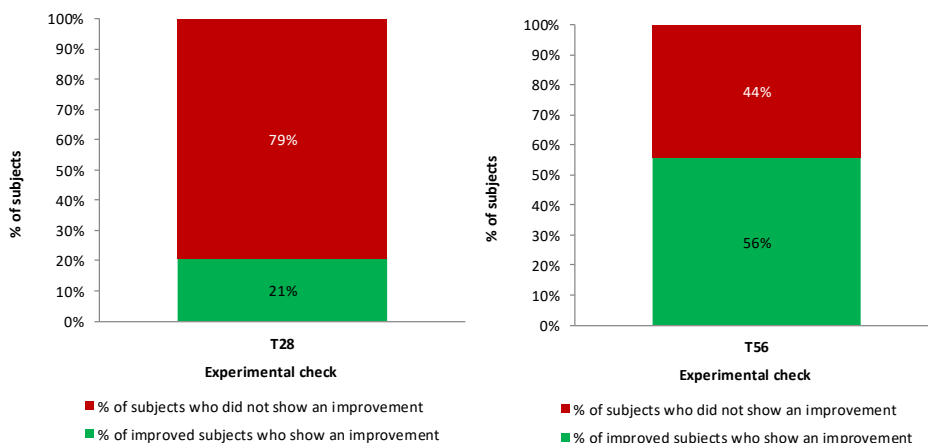


CLINICAL ANALYSIS – SKIN FIRMNESS/TONICITY on internal upper arms area

TABLES 10a,b The tables report the clinical scores assigned by the experimenter at T0, T28 and T56. Data are expressed according to scores reported in box 3. Data at T28 refers to 24 out of 25 subjects.

n.	Vol ID	T0	T28	n.	Vol ID	T0	T56
01	P6020L	2	2	01	P6020L	2	2
02	S6370P	2	2	02	S6370P	2	3
03	B5098A	1	1	03	B5098A	1	2
04	L5748M	2	2	04	L5748M	2	3
05	C5641B	3	3	05	C5641B	3	3
06	G5156C	3	3	06	G5156C	3	3
07	M5192P	3	3	07	M5192P	3	3
08	M5605I	2	2	08	M5605I	2	2
09	B6016T	2	2	09	B6016T	2	2
10	F5103R	2	2	10	F5103R	2	3
11	S5673M	2	2	11	S5673M	2	3
12	I6083F	2	2	12	I6083F	2	2
13	C4970G	2	2	13	C4970G	2	3
14	G0656C	2	2	14	G0656C	2	2
15	T3581R	2	2	15	T3581R	2	2
16	R2227S	2	3	16	R2227S	2	3
17	C1167R	1	2	17	C1167R	1	2
18	F4202C	1	2	18	F4202C	1	2
19	P2591C	2	2	19	P2591C	2	3
20	Q2899C	2	3	20	Q2899C	2	3
21	F4631M	2	3	21	F4631M	2	3
22	A0004R	[2]	DO	22	A0004R	2	2
23	P0286G	1	1	23	P0286G	1	2
24	D0668A	3	3	24	D0668A	3	3
25	M1451M	1	1	25	M1451M	1	2
Mean		2,0	2,2	Mean		2,0	2,5
SEM		0,1	0,1	SEM		0,1	0,1
Wilcoxon vs. T0		--	0,025	Wilcoxon vs. T0		--	0,000

GRAPHS 10a,b The graphs reports the percentage of subjects related to the effect.



Comment

A clinical and statistically significant improvement of skin firmness/tonicity on internal upper arms area was observed in 21% of the enrolled subjects at T28 and in 56% of them at T84.



SELF-ASSESSMENT

TABLE 9. The table below summarizes the results of the self-assessment questionnaire. The results are expressed as percentage (%) of subjects who expressed the same opinion among those proposed.

Self-assessment questionnaire (after the first product application)

No.	Items	Very pleasant	Pleasant	Neither pleasant nor unpleasant	Unpleasant	Very unpleasant	Positive answers
01	What do you think about the product aspect and color?	88,0%	12,0%	0,0%	0,0%	0,0%	100,0%
02	What do you think about the product texture?	68,0%	32,0%	0,0%	0,0%	0,0%	100,0%
03	What do you think about the product fragrance?	80,0%	12,0%	4,0%	4,0%	0,0%	92,0%
04	What do you think about product spreadibility?	88,0%	12,0%	0,0%	0,0%	0,0%	100,0%
No.	Items	Very good	Good	Not good	Bad		Positive answers
05	What do you think about product penetration?	88,0%	12,0%	0,0%	0,0%		100,0%
06	What is the after feel on the skin?	76,0%	24,0%	0,0%	0,0%		100,0%
07	What is your overall appreciation of this product?	72,0%	28,0%	0,0%	0,0%		100,0%
No.	Items	Yes, absolutely	Yes, mildly	Yes, slightly	Not		Positive answers
08	After the application, does the skin appear hydrated?	60,0%	36,0%	0,0%	4,0%		96,0%
09	After application, does the skin appear softer?	64,0%	32,0%	4,0%	0,0%		100,0%
10	After application, does the skin appear more radiant?	44,0%	48,0%	4,0%	4,0%		96,0%

Legend:

Positive answers → % of subjects who gave positive judgement (completely agree/ agree; Very pleasant/pleasant; Yes absolutely/Yes mildly)



Self-assessment questionnaire (after 56 days of product use)

No.		Agree	Moderately agreed	Not completely agreed	Not agreed	Positive answers
No. After 56 days weeks of application, have you noticed that						
01	Your skin is more nourished and moisturized	88,0%	12,0%	0,0%	0,0%	100,0%
02	Your skin is smoother	88,0%	12,0%	0,0%	0,0%	100,0%
03	Fine lines and wrinkles of décolleté area are less visible	40,0%	56,0%	4,0%	0,0%	96,0%
04	Your skin appears more elastic and firmer	60,0%	40,0%	0,0%	0,0%	100,0%
05	Internal upper arm area appears firmer and more toned	32,0%	56,0%	12,0%	0,0%	88,0%
No.		Strongly	Improved	Unchanged	Aggravated	Positive answers
No. After application, the following skin issues seem improved:						
06	Dehydration	48,0%	52,0%	0,0%	0,0%	100,0%
07	Lack of skin firmness and elasticity on the décolleté area	28,0%	68,0%	4,0%	0,0%	96,0%
08	Lack of skin firmness and elasticity of the internal upper arm area	20,0%	64,0%	12,0%	4,0%	84,0%
09	Lack of skin smoothness	24,0%	68,0%	4,0%	4,0%	92,0%
No.	Items. SUBSEQUENT USE OF THE PRODUCT	Luxe	Masstige	Mass market		
10	According to you, this product is sold in which market segment?	36,0%	60,0%	4,0%	0,0%	96,0%
No.	Items	Very good	Good	Not good	Bad	Positive answers
11	What is your overall appreciation of this product in terms of efficacy?	48,0%	52,0%	0,0%	0,0%	100,0%
No.	Items	Absolutely yes	Maybe	Probably not	Absolutely not	Positive answers
12	Would you continue using this product?	64,0%	36,0%	0,0%	0,0%	100,0%
No.	Items	All over the year	Only in spring/summer			Positive answers
13	If you would you continue using this product, when would you apply it?	92,0%	8,0%			100,0%
No.	Items	Absolutely yes	Maybe	Probably not	Absolutely not	Positive answers
14	Would you buy this product independently from price?	36,0%	52,0%	12,0%		-
15	Would you suggest this product to your acquaintance?	72,0%	28,0%	0,0%	0,0%	100,0%

Legend:

Positive answers → % of subjects who gave positive judgement (agree/moderately agree; Strongly/improved; Yes absolutely/Maybe)



CONCLUSION

On the basis of the obtained results, it is possible to conclude that the product:

TORSTONE SA

Le Décolleté Lissant & Raffermissant N°02

Reference code: lab-00621.17

determines a general improvement of the analysed skin parameters.

In particular the product determines:

- An increase of gloss parameter on décolleté area by +46.9% 15 minutes after its first application (T15min);
- An increase of skin moisturization on décolleté area by +20.4%* after 28 days (T28) and by +21.8% after 56 days of product use;
- An increase of R2 parameter on décolleté area by +4.5%* after 28 days (T28) and by +7.6% after 56 days (T56) of product use. An increase of this parameter indicates an improvement of skin elasticity;
- An increase of R2 parameter internal upper arm area by +3.5%* after 28 days (T28) and by +5.8% after 56 days (T56) of product use. An increase of this parameter indicates an improvement of skin elasticity;
- A decrease of R0 parameter on décolleté area by -7.8%* after 28 days (T28) and by -10.1% after 56 days (T56) of product use. A decrease of this parameter indicates an improvement of skin firmness;
- A decrease of R0 parameter on internal upper arm area by -5.4%* after 28 days (T28) and by -8.9% after 56 days (T56) of product use. A decrease of this parameter indicates an improvement of skin firmness;
- A decrease of Ra parameter on décolleté area (index of an improvement of skin smoothness) by -7.3%* after 28 days (T28) and by -15.1% after 56 days (T56) of product use;
- A decrease of Rz parameter on décolleté area (index of an improvement of skin roughness) by -6.7%* after 28 days (T28) and by -16.3% after 56 days (T56) of product use.

Moreover, the pH mean value remains almost unvaried 15 minutes after the first product use, index that it doesn't alter the basal skin conditions.

** Data collected at T28 refer to 24 subjects.*

The reported % are referred to the mean variations of the analysed parameters versus T0.

Reported variations are statistically significant versus T0.

The clinical analysis showed:

- o an improvement of skin tonicity on décolleté area in 76% of the enrolled subjects at T56;
- o an improvement of skin tonicity on internal upper arm area in 56% of the enrolled subjects at T56;

Finally, the product was positively judged for all the investigated aspects by most of the enrolled subjects.

Principal experimenter

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Data analysis and report

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ANNEX 1 – DIGITAL PICTURES

