

B – 495/10

RESEARCH REPORT

of dermatologic - path tests

and application characteristics of

GOJI CREAM

MANUFACTURER: LABORATORIES DIET ESTHETIC S.A.

Study dates:

05 July 2010 – 12 August 2010

Study basis:

The order of 28 June 2010 commissioned by Dr Piotr Koziej from Centrum Kosmetyków Sp. j. and research material delivered in substitute packaging.

Qualitative composition of the product:

Aloe Barbadensis (Aloe Vera Gel), Cetearyl Alcohol, Lycium Barbarum Fruit Extract, Avocado (Persea Gratissima) Oil, Rosa Moschata Seed Oil, Sodium PCA, Argania Spinosa (Kernel) Oil, Butyrospermum Parkii (Shea Butter), Ceteth-25, PEG-Stearate, Behenyl alcohol, Perfume (Fragrance) Diazolidinyl Urea, Propanediol, Sodium Benzoate, Potassium Sorbate, Xanthan Gum.

The commissioning party is liable for the consistence with the declared qualitative and quantitative composition and for the microbiological purity of the samples submitted for testing.

Product description:

- **Packaging:**

substitute - a plastic box, labeled with the name, purpose of the product and the manufacturer

- **Product appearance:**

Salmon-pink, lightly scented cream.

- **Product's intended function:**

"GOJI CREAM" is a face and neck skin care product.

A. DERMATOLOGICAL STUDIES

Methodology:

- The studies were conducted in accordance with the Act of 30 March 2001 on cosmetics, Journal of Laws No. 42, item 473, Article 11(1), p.4: the safety evaluation of a cosmetic product including research regarding skin tolerance of the said cosmetic carried out by the means of a semi-open patch test, European Council Directive 76/768/EEC concerning cosmetic products, as amended.

Selection of subjects - human volunteers:

- A selection of subjects, human volunteers, was conducted by a dermatologist in accordance with the Declaration of Helsinki from 1964, as amended, Polish and EU legislation, and COLIPA guidance with the application of inclusion and exclusion criteria.

In order to demonstrate toxicity, irritancy or sensitization potential, if any, and safe use on human skin of "GOJI CREAM", a cosmetic product submitted for testing, a diagnostic study was conducted on 30 individuals: 20 females and 10 males aged 20-59. The subjects were instructed not to use at the time of the study any antihistamine drugs or pharmacological agents that could have affected the results of the study. The subjects' skin and subjective sensations were evaluated by consultant dermatologists prior to the application of the product, during, and after the study. The said product was submitted to patch /epidermal/ tests. Test exposition was 48 hrs. The results of the patch tests were interpreted after 48 and 72 hours from the time they were applied.

Results:

All patch test results were **negative.**

B. APPLICATION TESTS

The product's intended action declared by the manufacturer:

- Reduces the appearance of wrinkles.
- Smooths, restores elasticity.
- Makes the skin firmer and more velvety.
- Moisturizes,
- Delicately lubricates.

Methodology:

- In accordance with the Act of 30 March 2001 on cosmetics, Journal of Laws No. 42, item 473, Article 11(1), p.6: Confirmation of the types of action declared by the manufacturer, including testing the efficacy of the submitted product.
- All studies on the "GOJI CREAM" product were conducted on subjects, human volunteers, in home conditions (in-home panel) and supervised by consultant dermatologists.

- Tests with lab equipment were conducted using the following equipment:
MPA, Multi Skin Centem MC750 and PhotoFinderMedicam

Selection of subjects - human volunteers:

- The selection of subjects, human volunteers, was conducted by a dermatologist in accordance with the Declaration of Helsinki from 1964, as amended, Polish and EU regulations, and COLIPA guidance using the inclusion and exclusion criteria.
- 30 individuals aged 34 - 63 with normal, dry, wrinkle-prone skin participated in the study.
- Prior to the application of the product, the skin was examined by consultant dermatologists.
- No pathologic lesions, signs of irritation or sensitization were found on the subjects' skin at the commencement of the study.
- Both, the skin and the subjective sensations of the subjects were examined and evaluated by a consultant dermatologist prior to the application of the product, during, and after the study.
- Additional, though essential, information concerning the product's effect was submitted by the subjects themselves. To this end, they remained in touch with the doctor throughout the study.

The subjects, volunteers, received one package of "GOJI CREAM" each and were further obliged to:

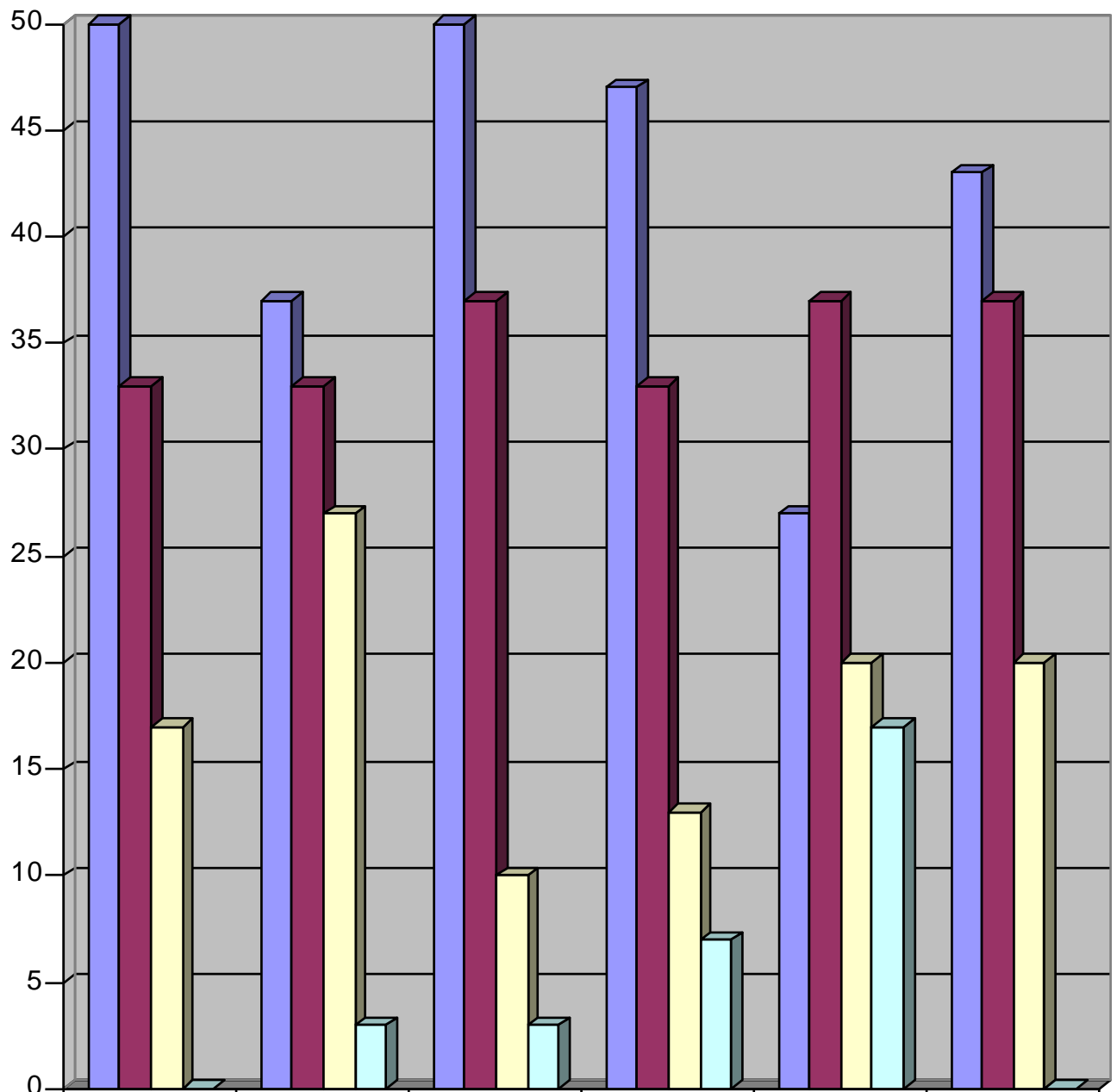
- use the product regularly for a period of 4 weeks (or until the product has been used up) by applying it every morning and/or evening to the cleansed skin of the face,
- not to use at the time of the study any other products of identical or analogical functions,
- discontinue using the cream forthwith in the case of any negative symptoms occurring in the areas where the product had been applied and to report any such symptoms to the leading dermatologist,
- observe and make detailed notes on the efficacy of the tested product,
- visit a dermatologist for skin check-ups and a follow-up examination after the study has been concluded,

Results:

- The product caused no irritations and was well tolerated by all volunteers participating in the study.

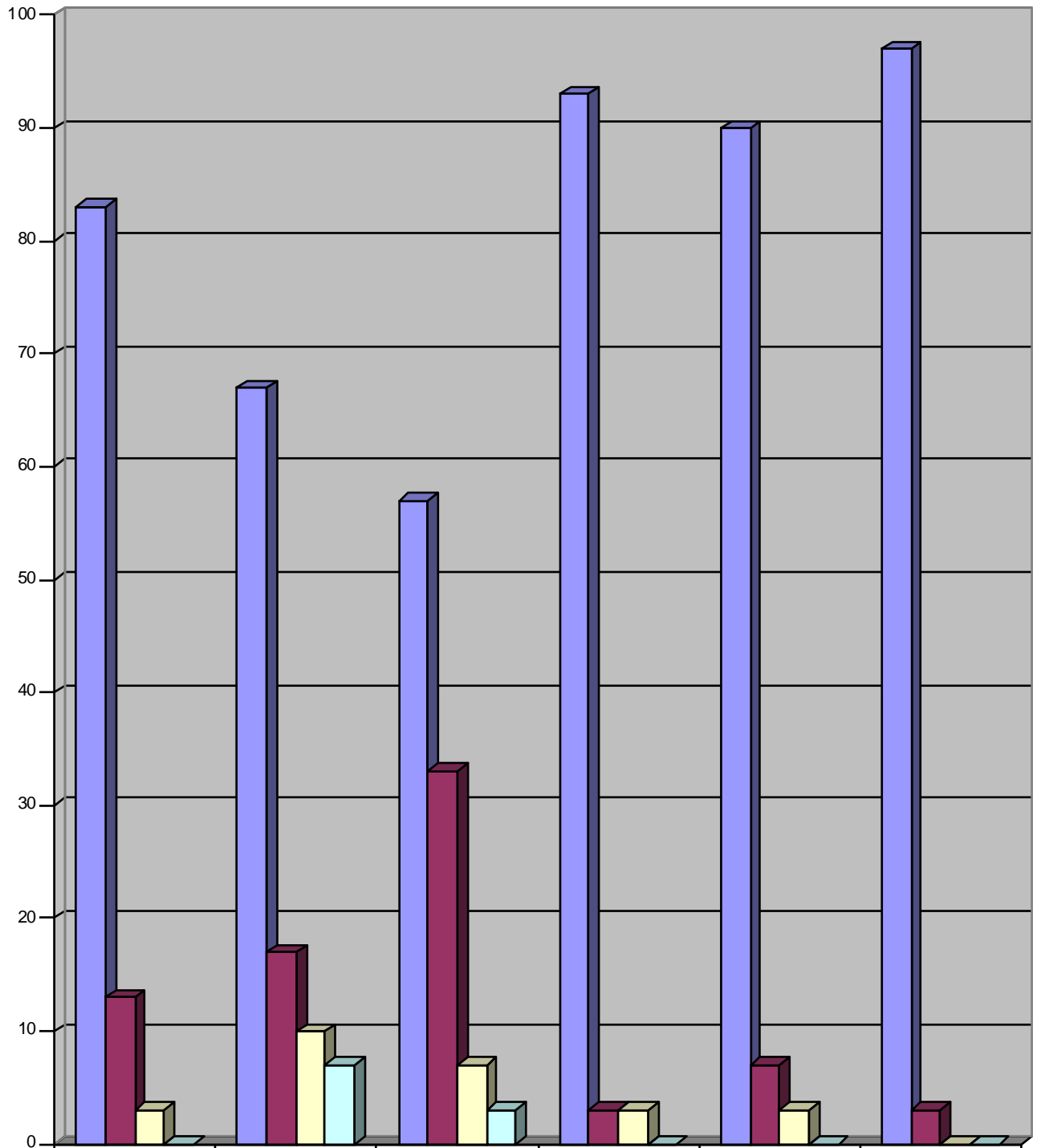
- According to the subjects, the application of the cream over the period of 4 weeks created a firmer, lifted skin.
- It was observed that regular application visibly reduced both fine lines and wrinkles.
- The subjects confirmed that the cream efficiently moisturized and delicately lubricated the skin preventing it from becoming overly dry.
- According to the volunteers, regular application of the cream created a better looking, smooth, supple and soft skin, which made it more firm and velvety to the touch.
- The studied persons stressed the functional advantages of the product, i.e.:
 - delicate creamy formula,
 - light, pleasant scent of the perfect intensity,
 - salmon-pink hue,which encouraged its regular application.
- What is more, the high efficiency of the product was also confirmed, as small applications thereof were easily spread onto the skin.

Evaluation of the declared properties



	Moisture	Lubrication	Smoothness	Suppleness and elasticity	Wrinkle reduction	Improvement of the skin condition and
Very good	50	37	50	47	27	43
Good	33	33	37	33	37	37
Slight	17	27	10	13	20	20
None	0	3	3	7	17	0

Product evaluation by the volunteers



	General properties	Color and hue	Fragrance and intensity	Application	Absorbance	Efficiency
Very good	83	67	57	93	90	97
Good	13	17	33	3	7	3
Poor	3	10	7	3	3	0
Inadequate	0	7	3	0	0	0

C. TESTS WITH LAB EQUIPMENT:

A consultant dermatologist randomly chose 5 individuals from the subjects for further examination. The examination was to determine the efficacy of providing moisture, lubrication and measurement of smoothness and elasticity.

The measurements were taken in an air-conditioned room at a temperature of 20°C and a relative air humidity of 40-60%.

- TEWL (transepidermal water loss) measurements taken by direct, uninterrupted contact of the probe with the facial skin surface over a time period of 30 sec.

Prior to the measurement, the subjects had two 2cm x 2cm areas designated on their facial skin (ca. 5cm from the suborbital area). TEWL was measured prior to, and after 1h and 3hrs following the application of the cream. During one test, the measurements taken from the respective areas were added up and divided by four, which determined a mean TEWL value.

- Measurement of moisture in skin during 4 weeks of product application.

The subjects had two 2cm x 2cm areas designated on their facial skin (ca. 5cm from the suborbital area). The moisture measurement was performed in each area before

product application, and next, in the course of and after the study /in the 1, 2, 3 and 4 week of application/. During one test, the measurements taken from the respective areas were added up and divided by four, which determined a mean skin moisture value.

- Measurement of lubrication during 5 hours following product application.

The subjects had two 2cm x 2cm areas designated on their facial skin (ca. 5cm from the suborbital area). The lubrication measurement was performed in each area before product application, and next, in the course of and after the study /1, 2, 3 and 5h of application/. During one test, the measurements taken from the respective areas were added up and divided by four, which determined a mean skin lubrication value.

- Measurement of elasticity during 4 weeks of product application.

The subjects had two 2cm x 2cm areas designated on their facial skin (ca. 5cm from the suborbital area). The elasticity measurement was performed in each area before product application, and next, in the course of and after the study /in the 1, 2, 3 and 4 week of application/. During one test, the measurements taken from the respective areas were added up and divided by four, which determined a mean skin elasticity value.

The results are presented in the tables:

Table Mean TEWL values in a 30 sec. period measured by an uninterrupted method prior to, and after 1h and 3hrs following the application of "GOJI CREAM" (in measurement units).

SUBJECT	TEWL measurement		
	Skin before product application	Skin 1h after product application	Skin 3h after product application
A	17	10	13
B	18	11	15
C	19	10	16
D	12	7	10
E	10	6	8
Mean values	15	9	12
Mean values in %	100*	60	80

**100% was the accepted measurement of skin moisture prior to the application of the cream*

Table Mean facial skin moisture measurement values during 4 weeks following the application of "GOJI CREAM" (in measurement units).

SUBJECT	Skin moisture measurement				
	0	week 1	week 2	week 3	week 4
A	44	47	51	55	57
B	58	59	63	67	69
C	37	40	44	47	49
D	41	43	44	47	51
E	56	58	61	66	72
Mean values for the whole group	47	49	53	56	60
% values for the whole group	100	104	113	119	128

Table 4 Mean values of facial skin lubrication measurements following the application of "GOJI CREAM" during 5 hours (in measurement units).

SUBJECT	Lubrication measurement				
	0	1 h	2 h	3 h	5 h
A	49	69	63	59	54
B	53	72	67	64	59
C	39	61	55	51	48
D	42	68	60	56	50
E	59	79	72	68	62
Mean values for the whole group	48	70	63	60	55
Mean lubrication value in %	100%	146	125	120	115

Table Mean facial skin elasticity measurement values during 4 weeks following the application of "GOJI CREAM" (in measurement units).

SUBJECT	Elasticity measurement				
	0	week 1	week 2	week 3	week 4
A	50	53	56	62	65
B	46	47	50	55	62
C	19	22	25	30	34
D	41	43	47	52	57
E	59	61	64	70	77
Mean values for the whole group	43	45	48	54	59
Values in %	100	105	112	126	137

- Skin smoothing effect measured by PhotoFinderMedicam over a period of 4 weeks

Examinations performed by PhotoFinderMedicam in 10 randomly selected subjects confirmed the observations: prior to the application of the product, skin structure is highly visible, the skin surface is intersected with dark lines forming hollows and furrows; right after the application of the cream, the whole skin surface and hollows become precisely covered with a uniform layer; after 1h of application, the furrows and hollows are still filled with the cream but the screen is evidently thinner as skin structure is more visible. It is indicative of the fact that lipids have been partly absorbed, which provides adequate protection against adverse environmental effects. During an examination conducted after 4 weeks of product use, a skin smoothing effect was reported.

Results:

- The content of the cream made the cream leave a protective layer that is highly stable over time. To validate the assumed and observed moisturizing properties of the cream, a TEWL measurement was performed using an uninterrupted measurement method over a period of 30 seconds of direct contact of the probe with the skin.
- TEWL measurements demonstrated that "GOJI CREAM" maintains a stable level of skin moisture.
- The rate of water evaporation from the skin protected by the product in the examined group of volunteers decreased by nearly 40% on average during the first hour, and by a further 20% in the next 3 hours as compared with untreated skin.
- The studies performed demonstrated that regular use of the product, in accordance with the instructions, improves skin moisture and retains its optimum level for a long time afterwards.
- Tests with lab equipment validated that after product application, the skin is delicately lubricated.
- Moreover, tests with lab equipment proved that skin elasticity improved by more than 30% during the 4 weeks of application.
- Observations conducted by dermatologists with a dermatoscopic camera and digital analysis of the surface of the skin confirmed a skin smoothing effect.

CONCLUSIONS

On the basis of the examinations performed by dermatologists, the subjective evaluations of volunteers, and history data taken in accordance with Article 11(1), pp.4,6 of the Act on cosmetics, the following was found:

- Based on the entirety of the conducted research, no symptoms that would indicate a harmful effect exerted on the human skin, i.e. toxicity, irritancy or sensitization potential of the product, "GOJI CREAM", were found. Epidermal tests were all negative.
- The presented opinion does not concern individuals who are allergic to any component of the evaluated product.
- According to the subjects, who submitted key information regarding the product's effects, the cream was well tolerated by all the examined individuals.
- No participant in the study reported any subjective ailments, such as itching, burning, or stretching of the skin, etc. that would indicate a negative effect of the product on human skin.
- Tests with lab equipment confirmed the subjects' impressions and proved that the

cream-treated skin becomes covered with a protective coat, which efficiently, even 3h after application, decreases the rate of water evaporation from the corneal layer of the epidermis and sustains proper skin moisture.

- An invisible protective coat that remains on the skin inhibits the natural escape of endogenous water, which because of adverse (dehydrating) exogenous factors evaporates from the corneal layer of the epidermis faster than usually.
- Uninterrupted occlusion, which has a highly negative effect both on the hydrolipidic equilibrium of the skin and on gas exchange (so-called skin respiration) does not occur after the application of the product.
- Thank to such effects, the cream may be used both on healthy and overly dry skin.
- Owing to proper, deep hydration and delicate lubrication the skin becomes supple, elastic, smooth and hence radiant, full of vitality and relaxed.
- The moisturizing properties of the studied product were of particular importance for the subjects, who are exposed to long-hours of air-conditioned enclosed spaces, which makes skin lose its vitality and freshness.
- It was observed that the enriched with natural components cream is a perfect protector against drying up and nourishes the skin, which makes it healthier-looking.
- Tests with lab equipment and the subjects confirmed the manufacturer's assumptions that, owing to the natural active ingredients, the product inhibits the signs and processes of aging.
- The subjects participating in the study, the dermatologists evaluating the skin,

and the tests performed by them, all validated the claim that the cream applied regularly has a lifting effect.

- Thanks to well chosen components, it delays aging processes, prevents wrinkle formation and smoothes out already existing ones.
- The subjects stated the regular application of the cream makes the skin firm, supple, elastic, smooth, and pleasant to the touch.
- The perfectly composed components of the cream result in better-looking, brightened and radiant skin directly after its application.
- Moreover, it was shown that the cream is highly practical to use, is easy to apply on the skin and serves well as a make-up base.
- The tested individuals stressed that the delicate, light consistency, salmon-pink hue, and subtle fragrance make the cream very pleasant to use.
- The velvety, liquid, and light cream formula is immediately absorbed by the skin, which makes it very natural to the touch.
- The studied product has good adhesive properties and can be washed off easily.
- The durability of its effect does not change during its application.
- The cream's properties ensure the appropriate, all-day face and neck skin care and constitute an ideal introduction to further facial treatments.
- The examined "GOJI CREAM" product conforms to the properties declared by the manufacturer.