



BSB  Innovation Award®
Cosmetics 2023
1. Prize Category Most Innovative Raw Material



FUNCTIONAL

JD Lusteris™

Sustainable by Choice. Sensational by Nature.

JD Lusteris™ is a unique premium emollient sourced from Jojoba Oil, created as a natural-derived alternative to nonvolatile low viscosity silicones.

JD Lusteris™ provides an extraordinary silky sensorial effect. It's precise composition of short and long Jojoba chains result in improving acne-prone skin by helping to control sebum and sooth skin. Additional benefits include improvement in hair breakage, oxidation protection and scalp hydration.

This novel raw material is biodegradable, responsibly sourced, and eco-friendly- perfectly aligned with clean beauty and green chemistry trends.

THE COSMETIC INDUSTRY DEMANDS NATURAL DERIVED ALTERNATIVES

According to Mintel*, natural products that combine excellent quality and sustainability, are in high demand with the self-educated consumers in this modern era. User surveys show that 49% will always prefer natural products that are kind to the environment.

Therefore, cosmetic manufacturers and formulators are constantly on the lookout for natural and naturally-derived raw materials that will provide them with the desired effect and advanced sensory performance that meet consumers' demand for cleaner beauty.

This has inspired Jojoba Desert to develop a product that merges the advantages of nature and advanced science.

JD Lusteris™ is a unique premium emollient, inspired by the cosmetic industry's needs for a green, sustainable alternative for silicones, originated from Jojoba Oil and manufactured through a safe, solvent-free process.

* Mintel Sustainability Barometer 2021

UTILIZING THE BENEFITS OF JOJOBA OIL

Jojoba Oil is a wax comprised almost entirely (~97%) of mono-esters of long-chain fatty acids and alcohols, making it one of the most stable lipids in nature.

Jojoba Oil's chemical structure mimics 25% of the human sebum, which is responsible for helping to reduce water loss from the skin surface, serving as a vehicle for lipophilic antioxidants, protecting against harmful microorganisms, and shielding against environmental aggressors.

Utilizing the unique properties of Jojoba Oil, we created a superior product that can act as a suitable replacement for silicones while providing functionality in the formulation for multiple applications.

As a natural derivative of JD Jojoba Oil, JD Lusteris™ fully incorporates our values and sustainable approach. From the very first stages of its development, all Corporate Social Responsibility (CSR) impacts were considered to offer the most eco-social ingredient possible in addition to efficacy.

COST EFFECTIVE - THE PERFECT TRINITY PACKAGE

JD Lusteris™ cleverly incorporates a combination of key substances allowing formulators to use fewer ingredients in the formulation, while maintaining high performance and cost-efficiency resulting in:

- Jojoba Esters and Jojoba Alcohol as **emollients**
- Jojoba Alcohol as **co-emulsifiers**
- Propanediol as a **humectant**

JD Lusteris™ acts as an emollient, co-emulsifier, and humectant - all in one.

CLAIMS

JD Lusteris™ in skin and hair care applications claims:

- Instant and long-term moisturization effect.
- Maintains the natural hydro-lipid skin barrier.
- Reduces the secretion of sebum.
- Acne-prone skin improvement.
- Presents soothing effect.
- Significant and durable scalp moisturization.
- Hair heat protection.
- Hair conditioning effect.
- Biodegradable.

TECHNICAL INFORMATION

INCI Name:	Jjoba Esters, Jjoba Alcohol, Propanediol, Tocopherol
CAS No.:	61789-91-1; 67762-27-0; 504-63-2; 1406-18-4
Microbiology (total Germs, Yeast and Mold):	<10 CFU/g
Chemistry:	Mixture 100% Natural Origin Content – ISO 16128 Produced by solvent-free process. Aligned with green chemistry principles. Inherently Biodegradable (OECD 301B Biodegradability test)
Recommended Dose:	3-50%
Solubility:	Liposoluble
Appearance:	Clear liquid
Shelf life:	24 months
Packaging:	25kg, 180kg
Application:	Skin Care, Face Care, Hair Care, Sun Care, Color Cosmetics

KEY BENEFITS



Vegan and
gluten-free



Contains Omega 9
and Vitamin E



Non-comedogenic



Safe to use for
all skin types



Green Chemistry
Principles



Biodegradable



Silky Feel



Best in Class



NOI 1 - according
to ISO 16128



Ophthalmological
Tolerance



Shelf life of
24 months

SENSORY ANALYSIS

Today, as D4, D5 and D6 are considered substances of very high concern (SVHC), according to the criteria set out in REACH Article 57, Jojoba Desert has developed JD Lusteris™ as a natural-derived alternative.

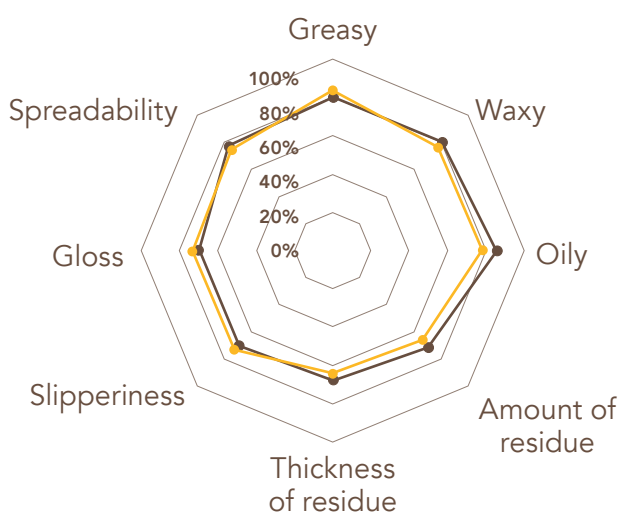
The molecular weight of silicones influences their viscosity and therefore their properties.

A low molecular weight implies that the silicone has a low number of monomer repeats. These are the most liquid silicones, that take on an oily consistency.

To determine this ingredient as an alternative for silicones we performed a sensory analysis comparing JD Lusteris™ to low viscosity Dimethicone.

SENSORY ANALYSIS COMPARED TO DIMETHICONE

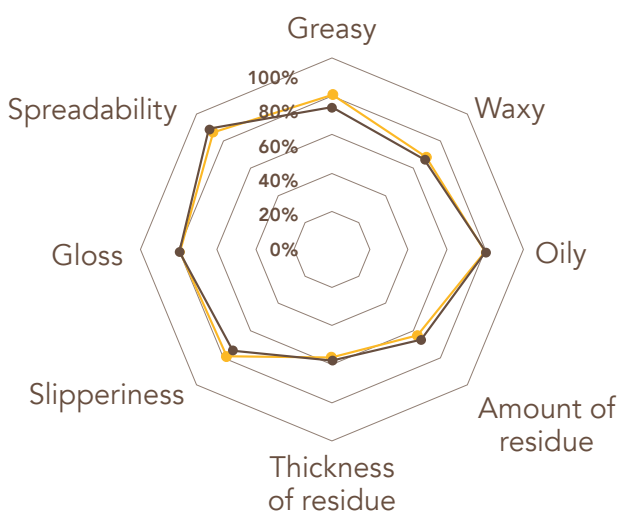
Sensory Profile - by Professional accessors



—●— JD Lusteris™
—●— Dimethicone

JD Lusteris™ was compared to Dimethicone (50 cS).
10 female professional accessors, 22 – 30 years old

Sensory Profile - by volunteers



—●— JD Lusteris™
—●— Dimethicone

JD Lusteris™ was compared to Dimethicone (50 cS).
20 female volunteers, 20 – 69 years old.

JD Lusteris™ offers a perfect substitute for Dimethicone in all tested parameters.

SKIN CARE – EFFICACY CLAIMS

JD Lusteris™ is a supreme ingredient, renowned for its self-replenishing hydrating characteristics. This 100% oil-free emollient, provides the skin with compounds ideal for maintaining an optimum hydration level.

Creating the right emulsion by capturing the attention of consumers as fresh, weightless, smooth, and protective, evoked with distinctive textures or sensory effects:

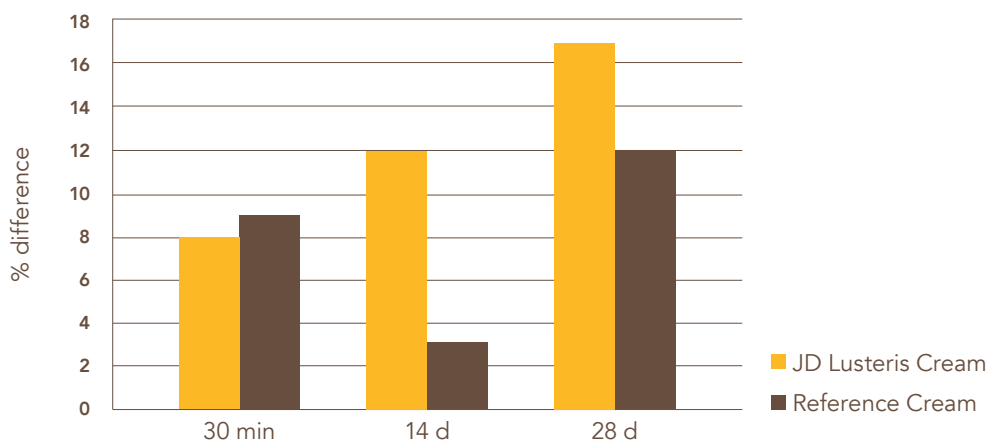
- Instant and long-term moisturization effect.
- Maintains the natural hydro-lipid skin barrier.
- Reduces the secretion of sebum.
- Presents soothing effect by stinging test.

CLINICAL STUDY

The clinical study was conducted under the following conditions:

- 30 female volunteers, 18 – 65 years old.
- 15 subjects with dry skin, 15 subjects with oily to combination skin.
- 15 out of 30 subjects with sensitive skin for a soothing effect assessment.
- JD Lusteris™ based formulation x2/day, 28 days. Reference formulation x2/ day, 28 days.
- Evaluation before the application and after 30 min, 14 days and 28 days.
- Instrumental tests were performed for hydration, TEWL and sebum level.

SKIN BARRIER FUNCTION - TEWL

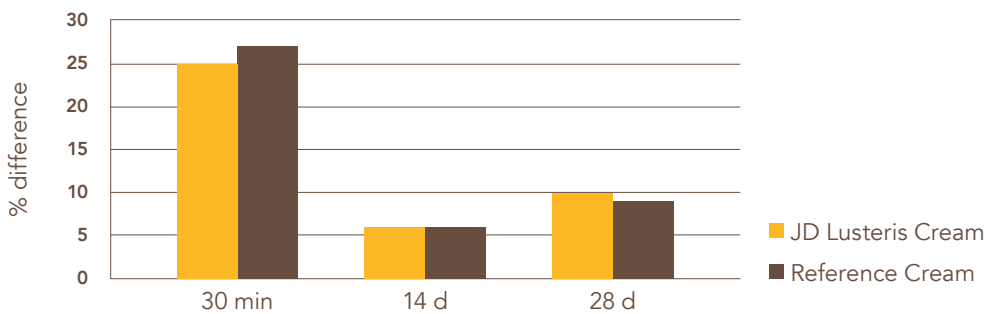


JD Lusteris™ based formulation improves the natural hydro-lipid skin barrier up to 17% after 28 days of regular use.

- JD Lusteris™ 7.5% formulation compared to Reference formulation (1,3-Propanediol – 3%, CCT – 2.5%, Cyclopentasiloxane – 2%).
- Skin hydration was measured using a Tewameter® to evaluate TEWL. Clinical study with 30 female volunteers (av. age 52), 28 days of twice a day application.

SKIN MOISTURIZATION POTENTIAL

Moisturizing level

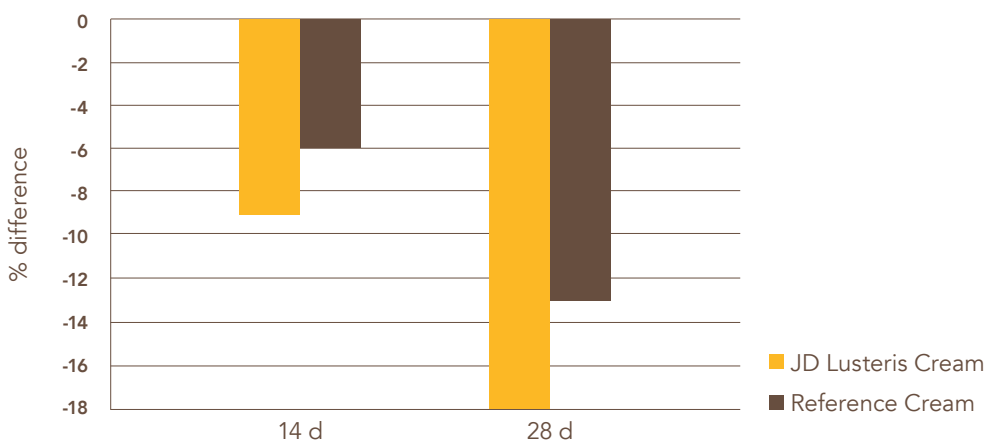


JD Lusteris™ based formulation is more efficient in skin moisturization after 28 days of regular use.

- JD Lusteris™ 7.5% formulation compared to Reference formulation (1,3-Propanediol – 3%, CCT – 2.5%, Cyclopentasiloxane – 2%).
- A Corneometer® CM 825 (Courage & Khazaka) was used to measure skin moisturization. Clinical study with 30 female volunteers (av. age 52) , 28 days of twice a day application.

EVALUATION OF SEBUM SECRETION

Sebum reduction

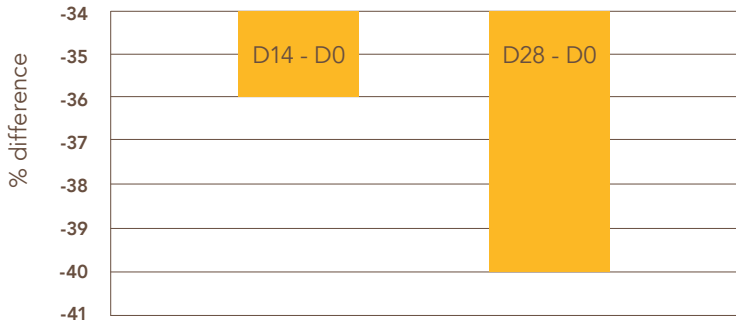


JD Lusteris Cream reduces the secretion of Sebum up to 18% after 28 days of regular use.

- JD Lusteris™ 7.5% formulation compared to Reference formulation (1,3-Propanediol – 3%, CCT – 2.5%, Cyclopentasiloxane – 2%).
- A Sebumeter SM 815 was used to measure skin moisturization. Clinical study with 30 female volunteers (av. age 52), 28 days of twice a day application.

EVALUATION OF SOOTHING EFFECT

JD Lusteris Cream - Soothing Effect

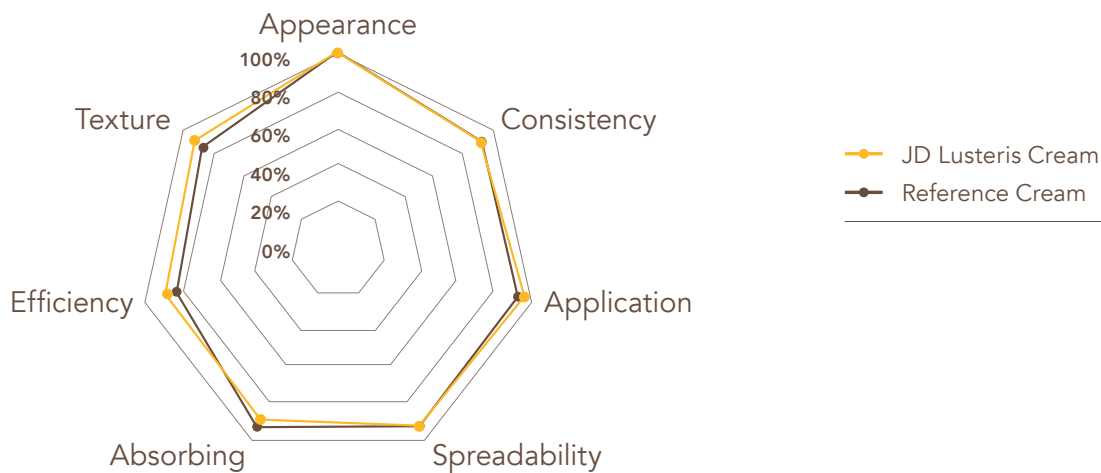


JD Lusteris Cream presents an efficient soothing effect after 14 and 28 days of regular use.

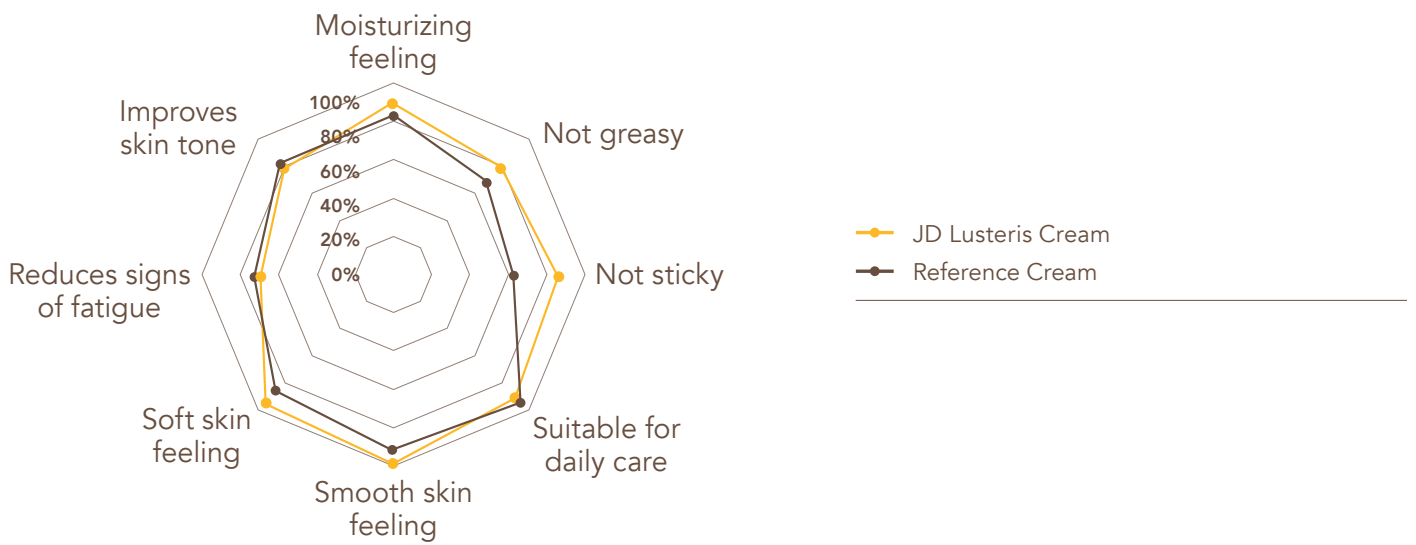
- Clinical study with 15 female volunteers with sensitive skin, 28 days of twice a day application of JD Lusteris™ 7.5% formulation.
- The soothing effect was evaluated after the irritation with 10% Lactic acid solution.

ASSESSMENT OF THE PRODUCT'S PROPERTIES – SUBJECTS' QUESTIONNAIRE

Assessment of the Product's Properties



Assessment of the Product's Properties



JD Lusteris Cream shows average of 89% positive responses in sensorial assessment of product's properties vs. 85% for the Reference Cream.

- JD Lusteris™ 7.5% formulation compared to Reference formulation (1,3-Propanediol – 3%, CCT – 2.5%, Cyclopentasiloxane – 2%).

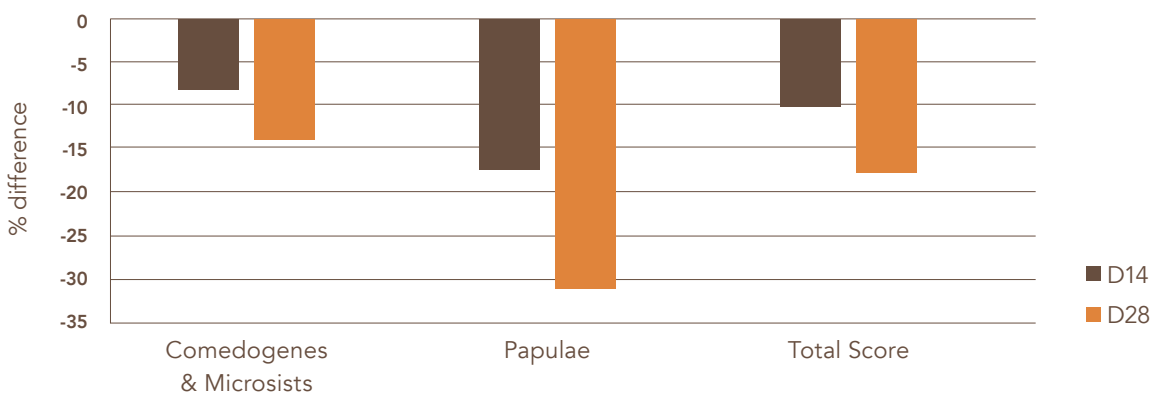
ANTI-ACNEIC POTENTIAL STUDY

Based on the knowledge that Jojoba Oil mimics the human sebum by 25%, application of Jojoba Oil signals the skin to minimize the sebum secretion. Since oily and acne-prone skin has hyperactive sebaceous glands, working overtime to produce sebum excess, one of the pathways to improve such skin condition is to use ingredients that help to balance the sebum secretion.

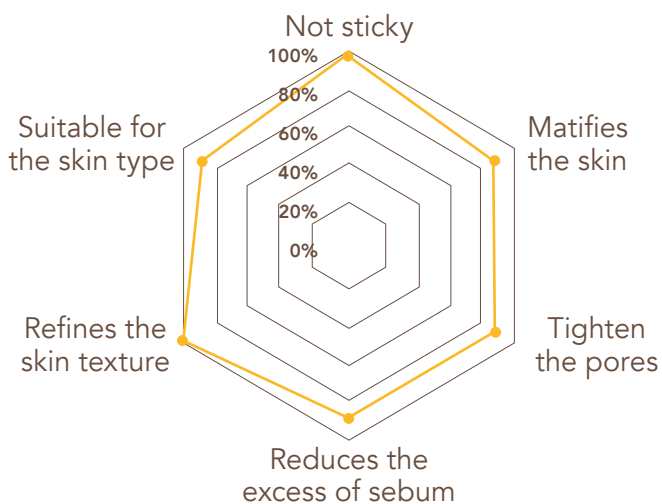
Thus, by applying Jojoba Oil, your skin gets the message that it doesn't need to produce more sebum. As a result, the skin balance is restored, resulting in an improvement of the skin condition.

Based on this observation and on the fact that JD Lusteris™ is derived from Jojoba Oil, we conducted a study to evaluate its Anti-Acneic Potential.

ANTI-ACNEIC POTENTIAL



SENSORY PROFILE



JD Lusteris Cream presents a statistically significant improvement of acne-prone skin conditions of up to 17% after 28 days and a very good cosmetic acceptability with 94% of favorable opinions.

- Clinical study with 22 female volunteers (av. age 38) with oily to oily facial skin with acne grade 1 to 2 on the GEA scale. 28 days of twice a day application of JD Lusteris™ 7.5% formulation.

HAIR CARE – EFFICACY STUDIES

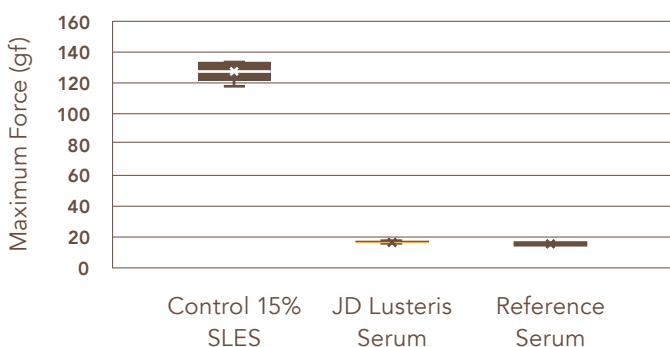
Our hair is exposed to many harmful factors. It can be damaged by exposure to mechanical stress and abrasion from combing and brushing, oxidative stress due to UV irradiation in an oxygen-rich environment, and chemical treatments designed to perm, color, straighten, relax, or bleach the hair.

JD Lusteris™ expresses simplicity in its best form, by providing hair film form and vital protection that results in a healthy and shiny look:

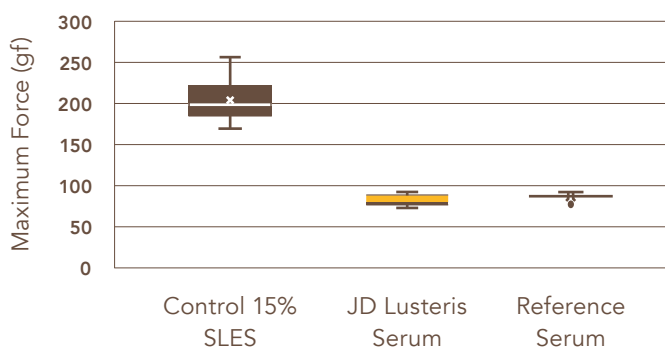
- Significant and durable scalp moisturization.
- Hair heat protection.
- Hair conditioning effect.

CONDITIONING EFFECT

Wet Combing



Dry Combing

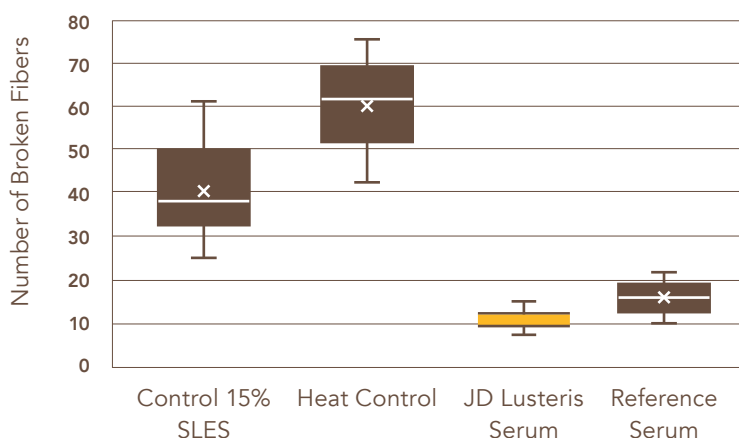


JD Lusteris Serum shows excellent conditioning effect in dry and wet combing force measurement.

- The study was performed by Garcia Method, 8 tresses were used per treatment group and 6 measurements were taken to evaluate the product performance.
- Hair serums, 5% (by weight of the tress) were applied on wet hair.
- Dry tresses washed 15% SLES at a dosage of 10% were used as Control. Silicone based formulation was used as a Reference.

HEAT PROTECTION

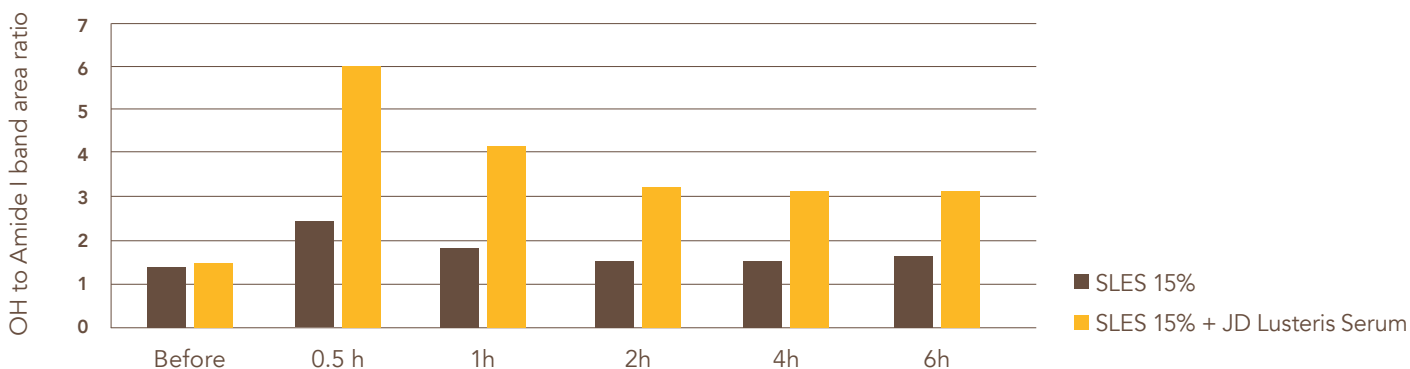
Heat Protection via Repeated Grooming



JD Lusteris Serum shows ~80% decrease in hair breakage compared to the heat-control.

- Hair serums, 5% (by weight of the tress) were applied on wet hair. Silicone-based formulation was used as a Reference.
- Flat iron with device set at (232 °C) 450°F at rate of 10 seconds per pass for a total of 30 passes.
- Dry tresses washed 15% SLES at a dosage of 10% were used as Control. Dry tresses washed 15% SLES at a dosage of 10% and exposed to flat iron device were used as a Heat Control.

SCALP MOISTURIZATION



JD Lusteris Serum presents a significant and durable hydration benefit.

- JD Lusteris™ 5.0% formulation compared to the untreated scalp.
- This data was generated from the average spectra recorded on the 4 panelists, for each time point (6) 6 areas around the scalp were scanned by ATR-FTIR.
- The water content was evaluated by the OH to Amide I band area ratio.

Please note: Analysis are made by an Independent ISO/IEC 17025:2005 certified laboratory, from samples taken from each batch being processed. Production in accordance with ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and complies with the GMP for Medical Products (2008).

Shelf Life: 24 months from the production date when kept in original unopened container, away from direct sunlight and excessive heat or cold.

The information and data included herein, are provided to the current state of knowledge of Jojoba Desert (A.C.S) Ltd. (hereinafter "JD"), and are intended to provide general information about JD's products. It is the user's responsibility to determine the suitability and completeness of such information for the user's particular use (including performing any necessary confirmatory tests). Due to possible changes in Jojoba Desert's products and applicable national and international regulations and laws, the condition or composition of the said products may change. Users must obtain and follow latest versions of relevant safety data sheets before using or handling any of the JD products.

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For further information, please contact JD at contacts@jojobadesert.com

