

Polymol Sensy

Silicone-free hair care solution

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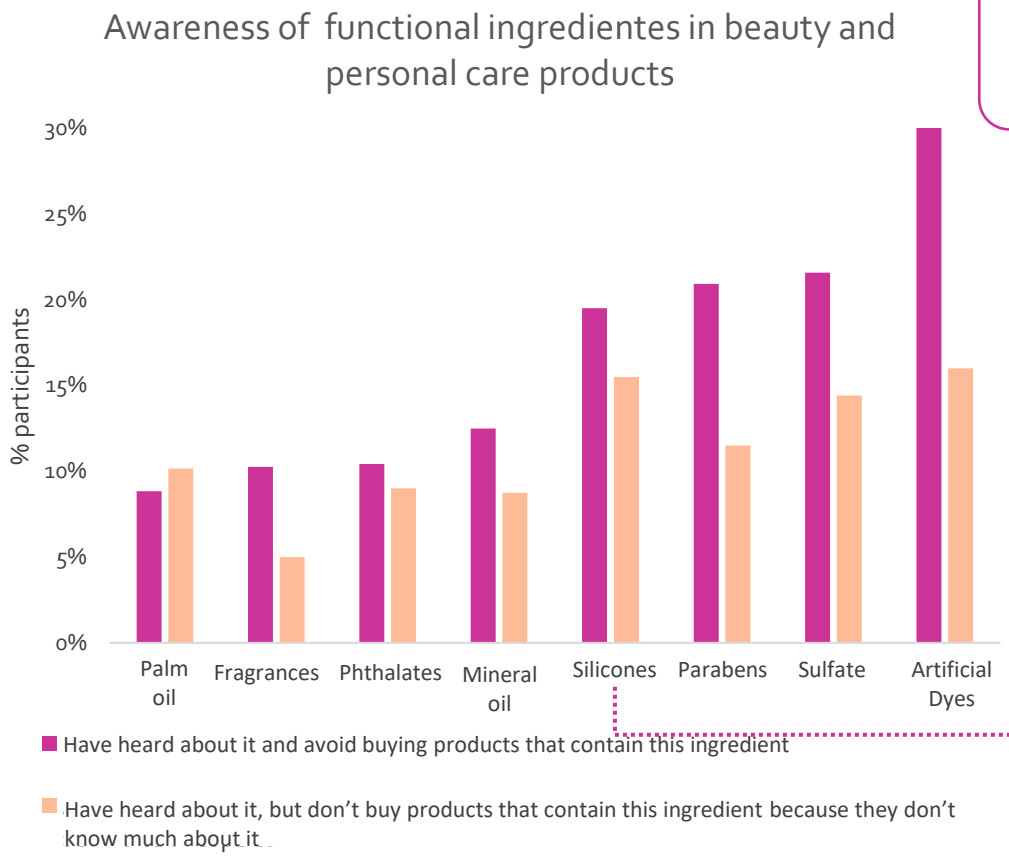
Inspiration & Market

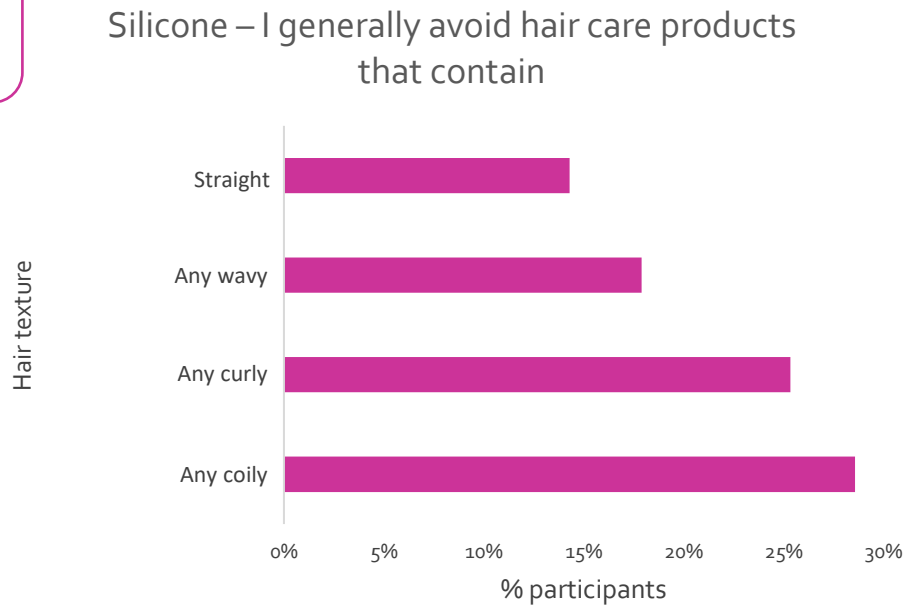


Market: Declining consumption of products with silicone

Participants were asked about their knowledge and purchases of functional ingredients in beauty and personal care products.

Silicone is one of the key ingredients that changes the consumer's purchase intent



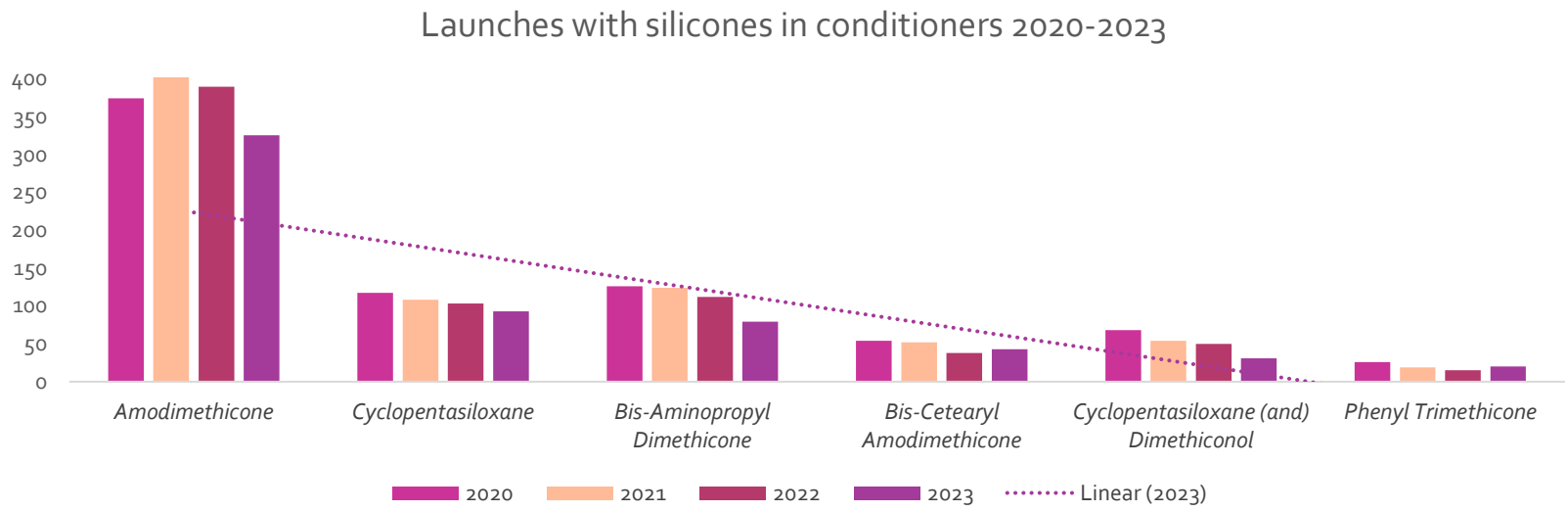


Consumers of **all hair types** are **avoiding** products with **silicones**

Source: Kantar *Profiles*/Mintel
"Tendências em Ingredientes de Beleza e Cuidados Pessoais - Brasil – 2021"
"Tendências em Ingredientes de BPC – Brasil – 2023"

Market: The decreasing presence of silicones is a trend

Amodimethicone, Cyclopentasiloxane, Bis-Aminopropyl Dimethicone, Bis-Cetearyl Amodimethicone, Cyclopentasiloxane (and) Dimethiconol, Phenyl Trimethicone, are the main silicones used in hair care.



In the 2020-2023 comparison, there was a reduction in the number of launches with these ingredients in conditioners

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Source: GNPD Mintel "*Amodimethicone*"; GNPD Mintel "*Cyclopentasiloxane*"; GNPD Mintel "*Bis-Aminopropyl Dimethicone*"; GNPD Mintel "*Bis-Cetearyl Amodimethicone*"; GNPD Mintel "*Cyclopentasiloxane (and) Dimethiconol*"; GNPD Mintel "*Phenyl Trimethicone* ".

Market: Brands with silicone-free positioning



WeDo/ Professional is a sustainable hair brand with professional performance. Silicone-free technology developed and applied to conditioners and masks.



DevaCurl is dedicated to providing curls everything they need and nothing they don't. One of those "nothings" is silicone.



Love Beauty and Planet believes that it is possible to look beautiful and make the world more beautiful at the same time. All the brand's shampoos and conditioners are silicone-free.

Source:
https://www.wedoact.com/en-gb/
https://www.devacurl.com/us/curl-101/silicone-free-hair-products
https://www.lovebeautyandplanet.com/us/en/the-love-beauty-planet-movement/our-purpose/our-blog/silicone-free-hair-care.html

Showcase: Silicone-free

Spray Desembaraçador Detangle, WeDo/ Professional
It contains 99% ingredients of natural origin, such as macadamia oil, that are **silicone-free and vegan.**





Acidic Bonding Concentrate Lightweight, Redken
Acidic leave-in with a combination of conditioning agents. Formulated **without silicone,** this finisher helps strengthen weak fiber bonds and treats from the inside out without weighing hair down.

T.R.U.E. Pure Conditioner, L'anza
Experience the clean, **silicone-free** and deeply nourishing moisture of squalane, apple fruit extract and other **plant-derived emollients**.





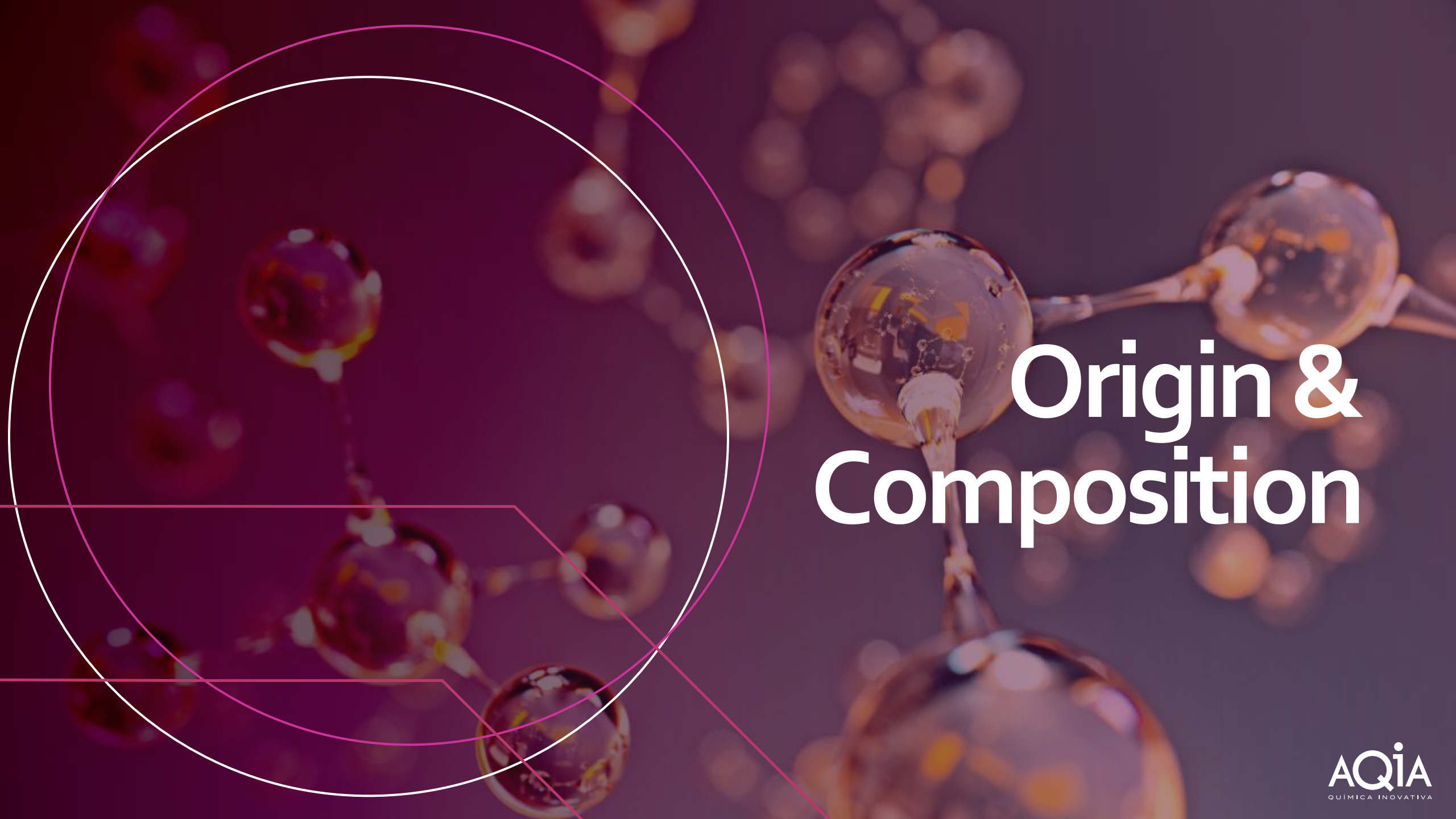
The Wizard Detangling Hair Primer, Amika
Lightweight, **silicone-free** primer that reduces frizz, protects from heat and detangles all hair types. While silicones add shine and retain moisture, Amika understands that they are **not part of everyone's hair routine**.



High Shine®, Deva Curl
Unlike other oils, High Shine is made with a **silicone-free** blend of **five natural oils** that don't weigh curls down.



Clean Balance Anti-Pollution Water, Schwarzkopf
It was developed to combat urban damage while moisturizing and conditioning the hair. It has an innovative **clean beauty** formula, 100% vegan, without sulfates, silicones, mineral oils, microplastics and artificial colors.

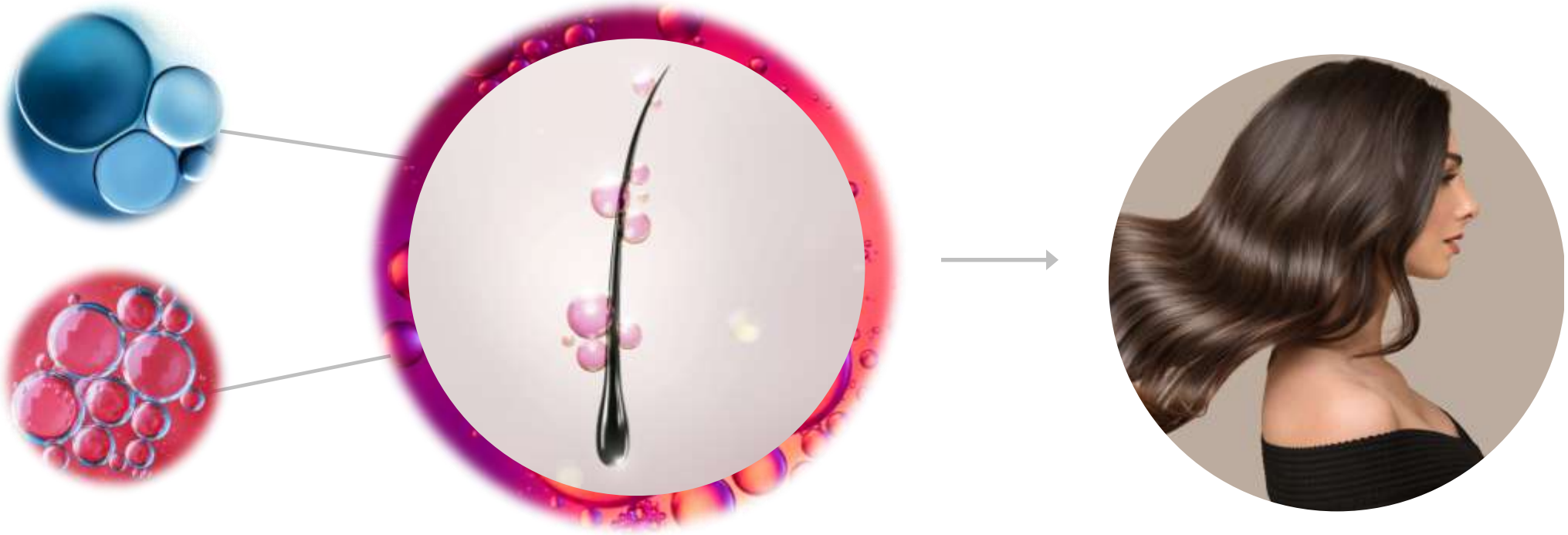


Origin & Composition

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Composition

A combination of emollients carefully selected to give similar and/or better results on hair compared to silicones usually used for this purpose: the combination of *Cyclopentasiloxane* and *Dimethiconol.*



Tests

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Application Test: Polymol Sensy x Silicones

Pairs of hair strands from different types were previously sanitized with a 10% *Sodium Lauryl Ether Sulphate* solution, subsequently one strand from each pair was treated with Leave-in with 2% silicones (*Cyclopentasiloxane and Dimethiconol* + *Cyclopentasiloxane**) and the other strand was treated with Leave-in with **2% Polymol Sensy**. After 24 hours, the pairs were compared using images.

STRAND 1



SILICONES POLYMOL SENSY

STRAND 2



SILICONES POLYMOL SENSY

STRAND 3



SILICONES POLYMOL SENSY

STRAND 4



SILICONES POLYMOL SENSY

Polymol Sensy demonstrated superior performance in all the hair strands evaluated

Leave-in with silicone: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; *Cyclopentasiloxane (and) Dimethiconol* 1,4%; *Cyclopentasiloxane* 0,6%; Preservative 0,4%. *Leave-in* com **Polymol Sensy**: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcohol 1618-S 2%; Polymol Sensy 2%; Preservative 0,4%. *Proportion 70:30

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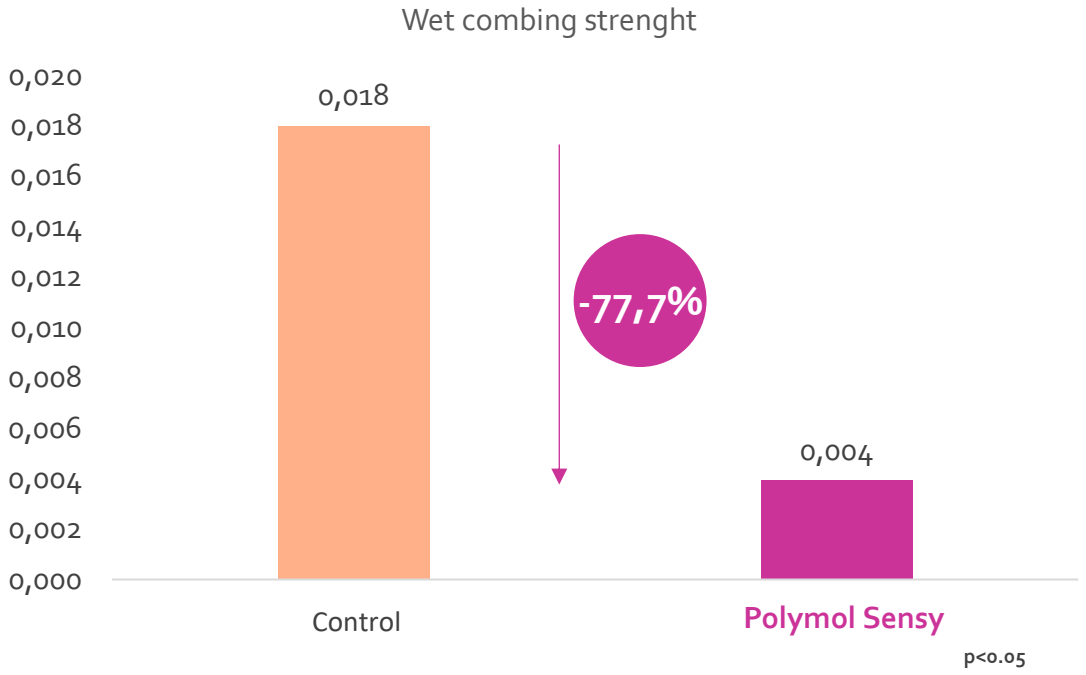


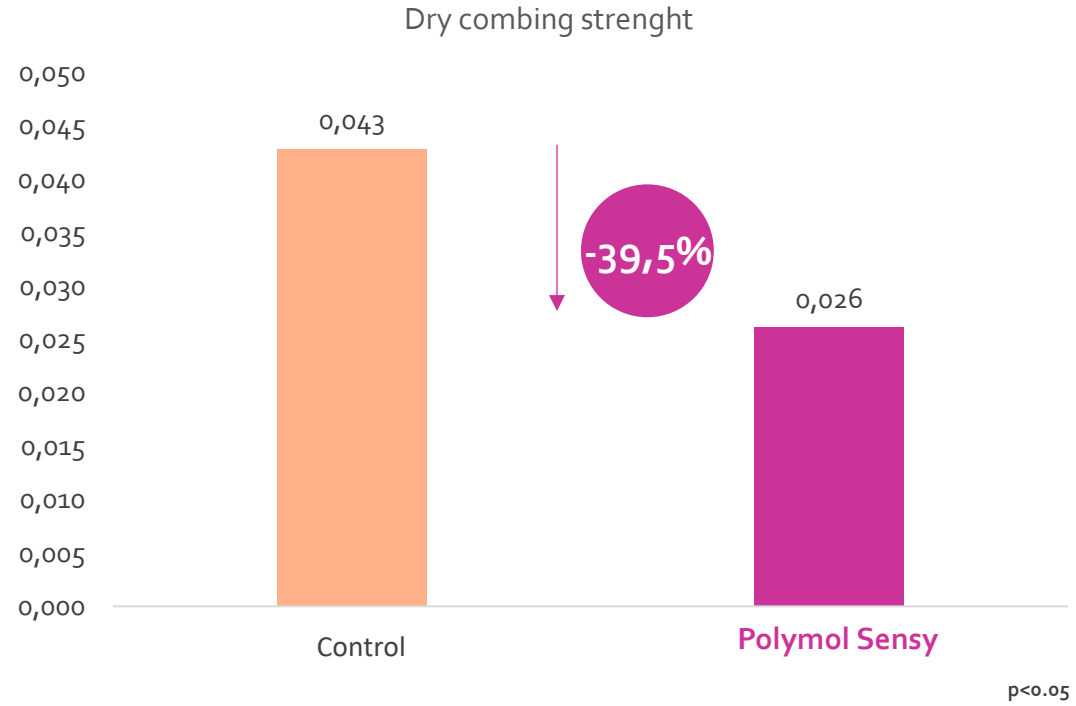
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Combability: Polymol Sensy x Control

Six strands of Caucasian hair were previously sanitized with a 10% *Sodium Lauryl Ether Sulphate* solution and divided into 2 groups (control and treated with Leave-in with **2% Polymol Sensy**). Combability was measured using the Dia-Stron UV1000 Control Unit.





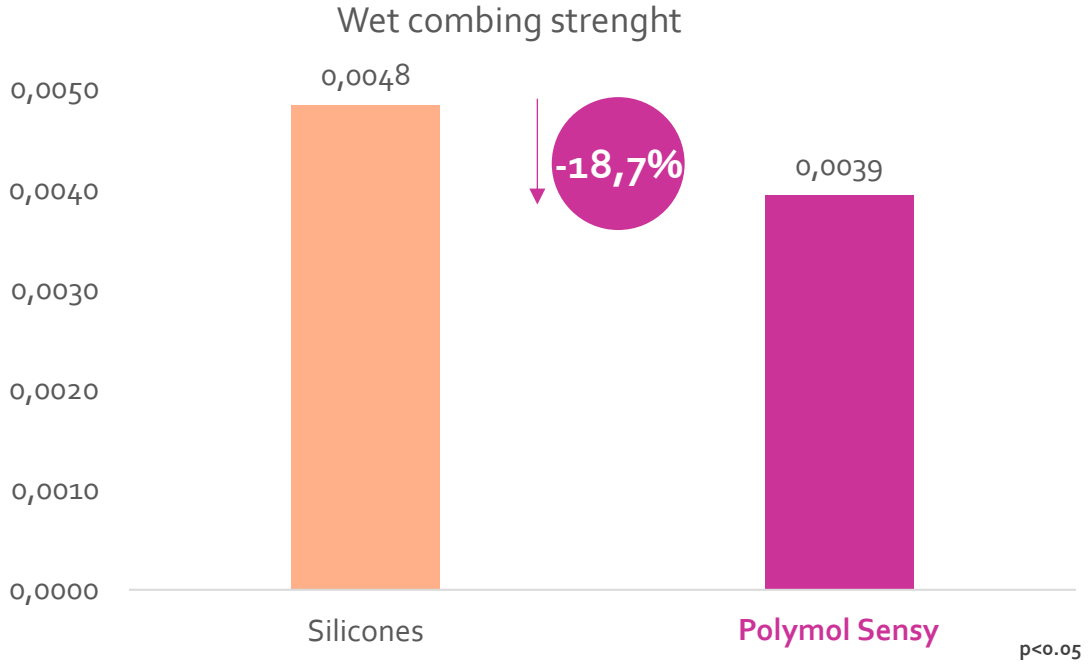
Polymol Sensy improves wet and dry combability

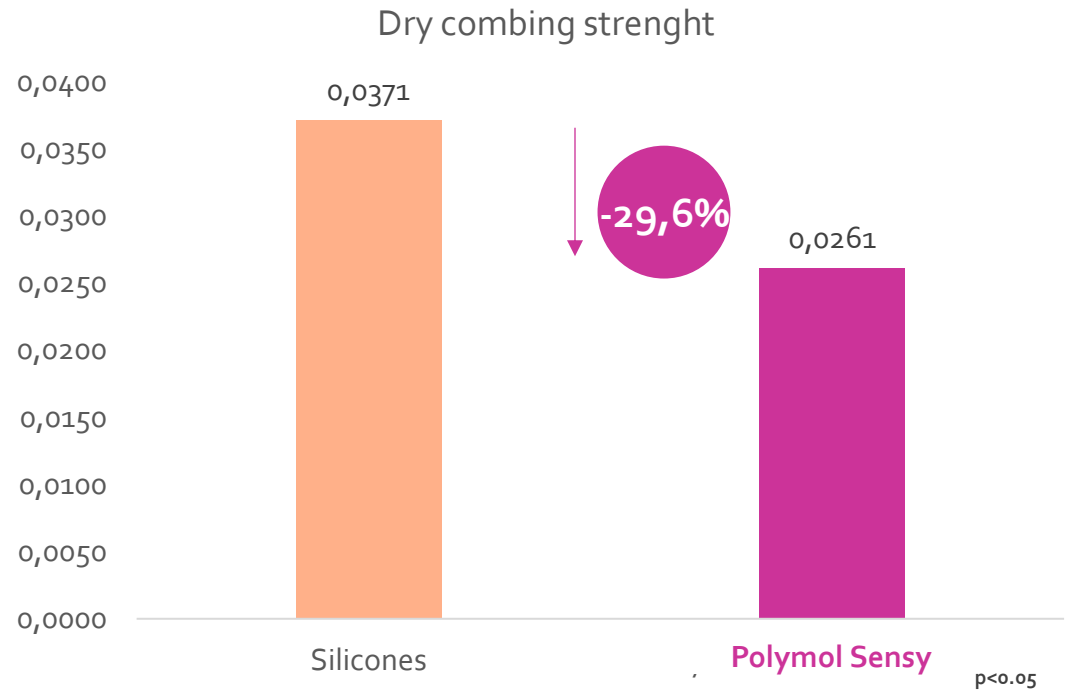
Leave-in with **Polymol Sensy**: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcohol 1618-S 2%; Polymol Sensy 2%; Preservative 0,4%.

*Proportion 70:30

Combability: Polymol Sensy x Silicones

Six strands of Caucasian hair were previously sanitized with a 10% *Sodium Lauryl Ether Sulfate* solution and divided into 2 groups (treated with Leave-in with 2% silicones [*Cyclopentasiloxane and Dimethiconol* + *Cyclopentasiloxane**] and treated with Leave-in with **2% Polymol Sensy**). Combability was measured using the Dia-Stron UV1000 Control Unit.





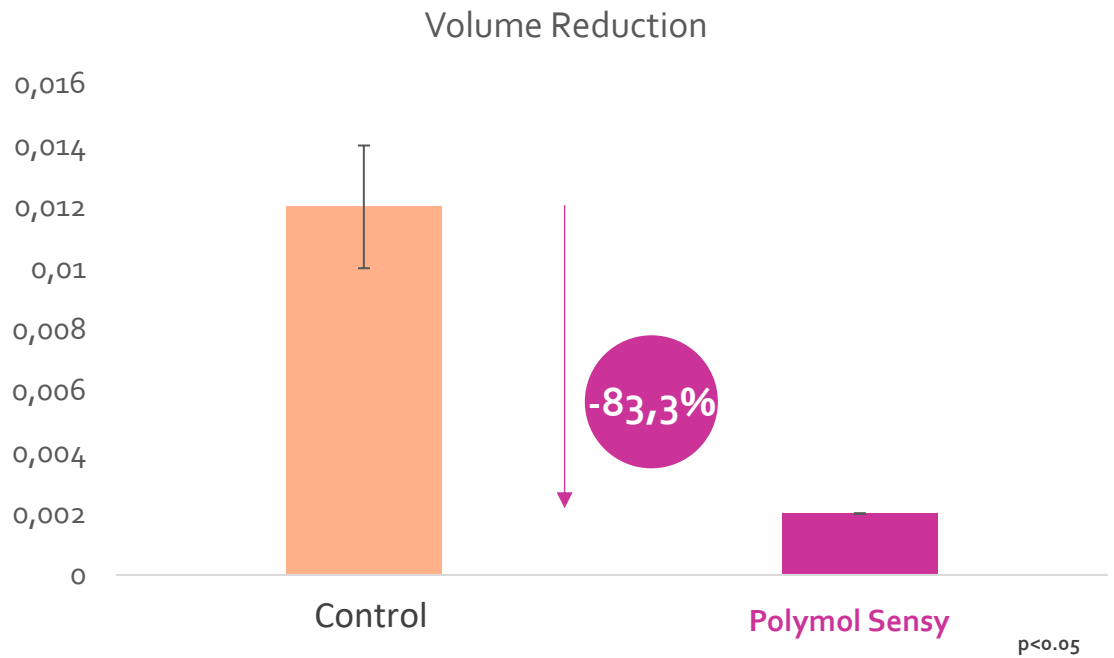
Polymol Sensy improves wet and dry combability, with superior performance to silicones

Leave-in with silicone: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; *Cyclopentasiloxane (and) Dimethiconol* 1,4%; *Cyclopentasiloxane* 0,6%; Preservative 0,4%. *Leave-in* with **Polymol Sensy**: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; Polymol Sensy 2%; Preservative 0,4%.

*Proportion 70:30

Volume reduction: Polymol Sensy x Control

Three strands of curly, dark brown hair were previously sanitized with a 10% *Sodium Lauryl Ether Sulfate solution* and rinsed. After drying naturally for 24 hours, the volume of the strands was read (Control). Subsequently, the strands were moistened and treated with Leave-in with **2% Polymol Sensy**. After drying naturally, the volume of the strands was read. The readings were taken using Dia-Stron UV1000.

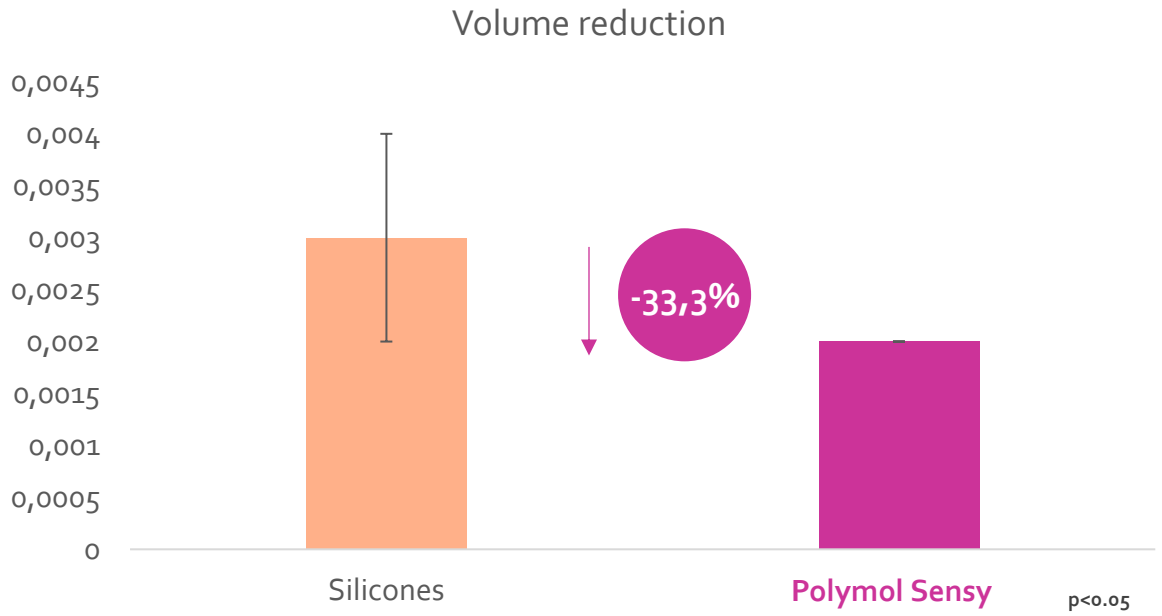


Polymol Sensy significantly reduces unwanted hair volume

Leave-in with **Polymol Sensy**: Demineralized water QS 100%, chalanting 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; Polymol Sensy 2%; Preservative 0,4%.

Volume reduction: Polymol Sensy x Silicones

Three strands of curly, dark brown hair were previously sanitized with a 10% *Sodium Lauryl Ether Sulfate* solution, rinsed and dried naturally for 24 hours. Subsequently, the strands were moistened and treated with Leave-in with 2% silicones (*Cyclopentasiloxane and Dimethiconol* + *Cyclopentasiloxane**). After drying naturally for 24 hours, the volume of the strands was measured. The strands were then sanitized again and treated with Leave-in with **2% Polymol Sensy**. After drying naturally, the volume of the strands was read. The readings were taken using a Dia-Stron UV1000.



Polymol Sensy presents greater hair volume reduction, with superior performance to silicones

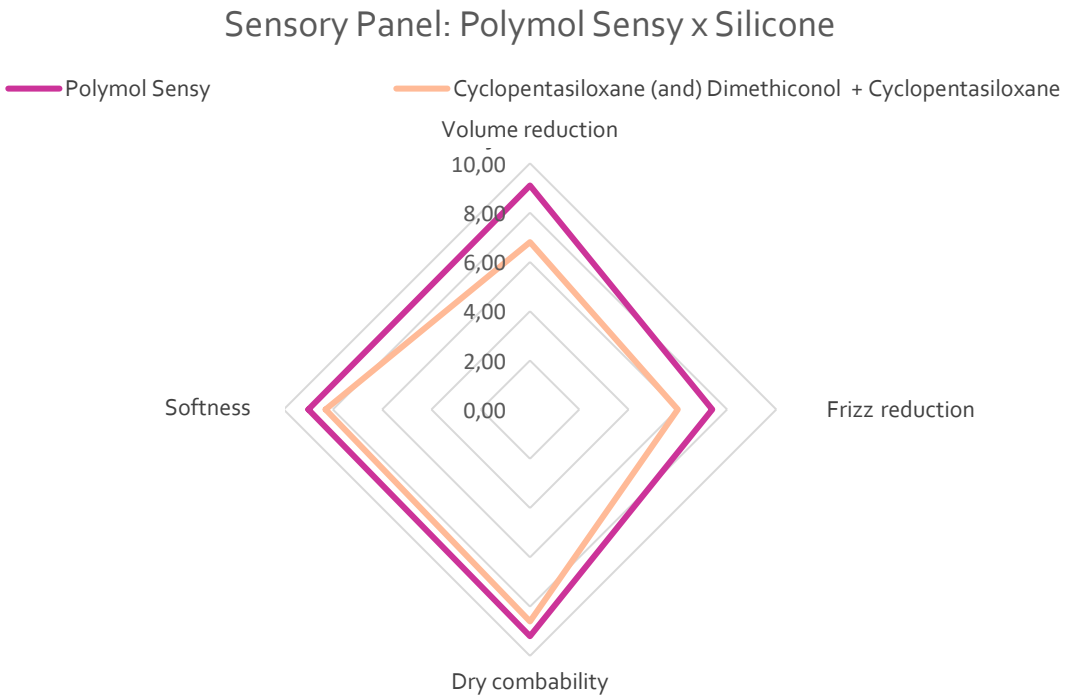
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*Proportion 70:30



Sensory Evaluation: Polymol Sensy x Silicones

Pairs of different hair types strands were previously sanitized with a 10% *Sodium Lauryl Ether Sulfate* solution, subsequently, one strand of each pair was treated with Leave-in with 2% silicones (*Cyclopentasiloxane and Dimethiconol + Cyclopentasiloxane**) and the other strand was treated with Leave-in with 2% **Polymol Sensy**. After 24 hours, sensory analysis was performed with five trained panelists to evaluate four sensory attributes.



Polymol Sensy has better performance than silicones in reducing frizz and volume

Leave-in with silicone: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; *Cyclopentasiloxane (and) Dimethiconol* 1,4%; *Cyclopentasiloxane* 0,6%; Preservative 0,4%. *Leave-in* with **Polymol Sensy**: Demineralized water QS 100%, Chelating 0,05%; Sunquart DHE 1,2%; Álcool 1618-S 2%; Polymol Sensy 2%; Preservative 0,4%.

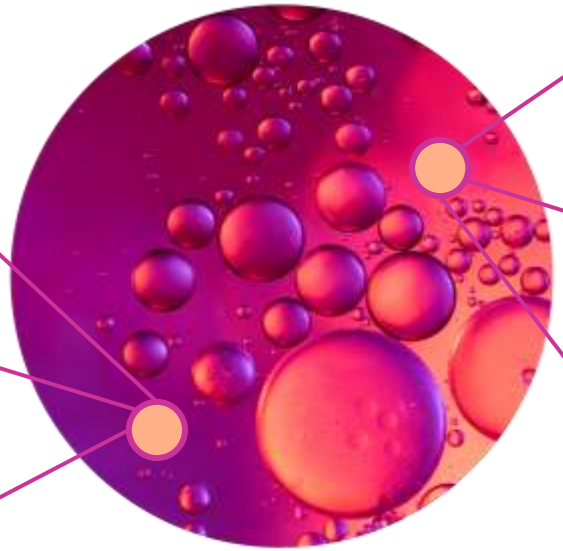
*Proportion 70:30



Benefits

Superior performance to silicones in **wet and dry combing**

Provides a 'silicon-like' feel to the hair



Superior performance to silicones in **frizz and volume reduction**

Low usage concentration in formulations

Excellent performance ,also, on **bleached, curly and wavy hair**

Superior performance to silicone in **softness**



Formulation and Application

Product Identity

- INCI Name: *Triisostearyl Citrate (and) Dicaprylyl Ether*
- Appearance (25°C): Liquid limpid
- Color: Colorless to slightly yelowish
- Use level: 0.5 - 35.0%
- NOC (ISO 16.128): 43.6%

Applications | *Hair Care*

- Conditioner, including post-Chemical
- Ampoules
- Leave-on
- Intensive masks
- Oils
- Post-color treatment
- Leave-in
- Hair stick



HAIR FLUID HYDRASENSE

PJ004322-01

Phase	Iten name	*INCI Name*	Quantity
A	DEMINERALIZED WATER	*Aqua*	QS100
A	CHELATING	See Technical Literature	0.0500
B	SUNQUART DHE	*Behentrimonium Chloride*	1.2000
B	ALCOOL C 1618-S	*Cetearyl Alcohol*	2.0000
B	EPINUTRIX	*Panthenyl Dibehenate/Oleate*	0.5000
B	**POLYMOL SENSY**	***Triisostearyl Citrate (and) Dicaprylyl Ether***	**2.0000**
C	PRESERVATIVE	See Technical Literature	0.4000
C	TAMARILIZ	*Tamarindus Indica Fruit Extract*	1.0000
C	ESSENCE	*Parfum*	0.7000

Preparation method:
In the main vessel, heat phase A to 75 - 80°C and mix.
In a side vessel, heat phase B to 75 - 80°C and mix.
While stirring, add A to B and mix for 10 - 15 minutes.
While stirring, cool to 40 - 45°C and add phase C. Homogenize.

Specifications:
- Aspect: Lotion
- Color: White
- pH: 3.5 - 4.5

Observations:
- Essence: BIOTEC GIH - SCE 818266
- Natural origin: 97.8 %

Key words / Claims

- *Silicone-free*
- Frizz control
- Volume reduction
- Soft and silky hair
- Easy to detangle
- Improves the appearance of hair
- Hair discipline
- Action for all hair types
- Vegan

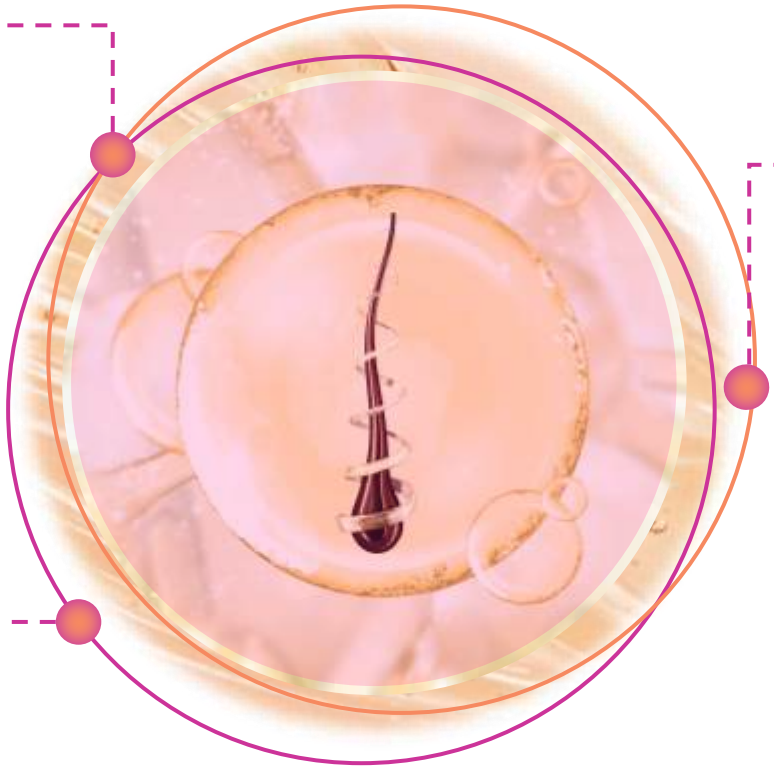
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Polymol Sensy

Superior performance to silicones:

- Improving wet and dry combability
- Reducing volume and frizz
- Increasing softness



Benefits

- Balanced emollient system that provides a "silicone-like" feel
- Effective even at low concentrations
- Ideal solution for silicone-free formulations

Composition

The combination of emollients with the benefits and sensory properties that allow them to be indicated as an alternative to silicones.

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