

Mastering Modern Hair Care

*Formulate for the Trends
that Matter: Part 2*

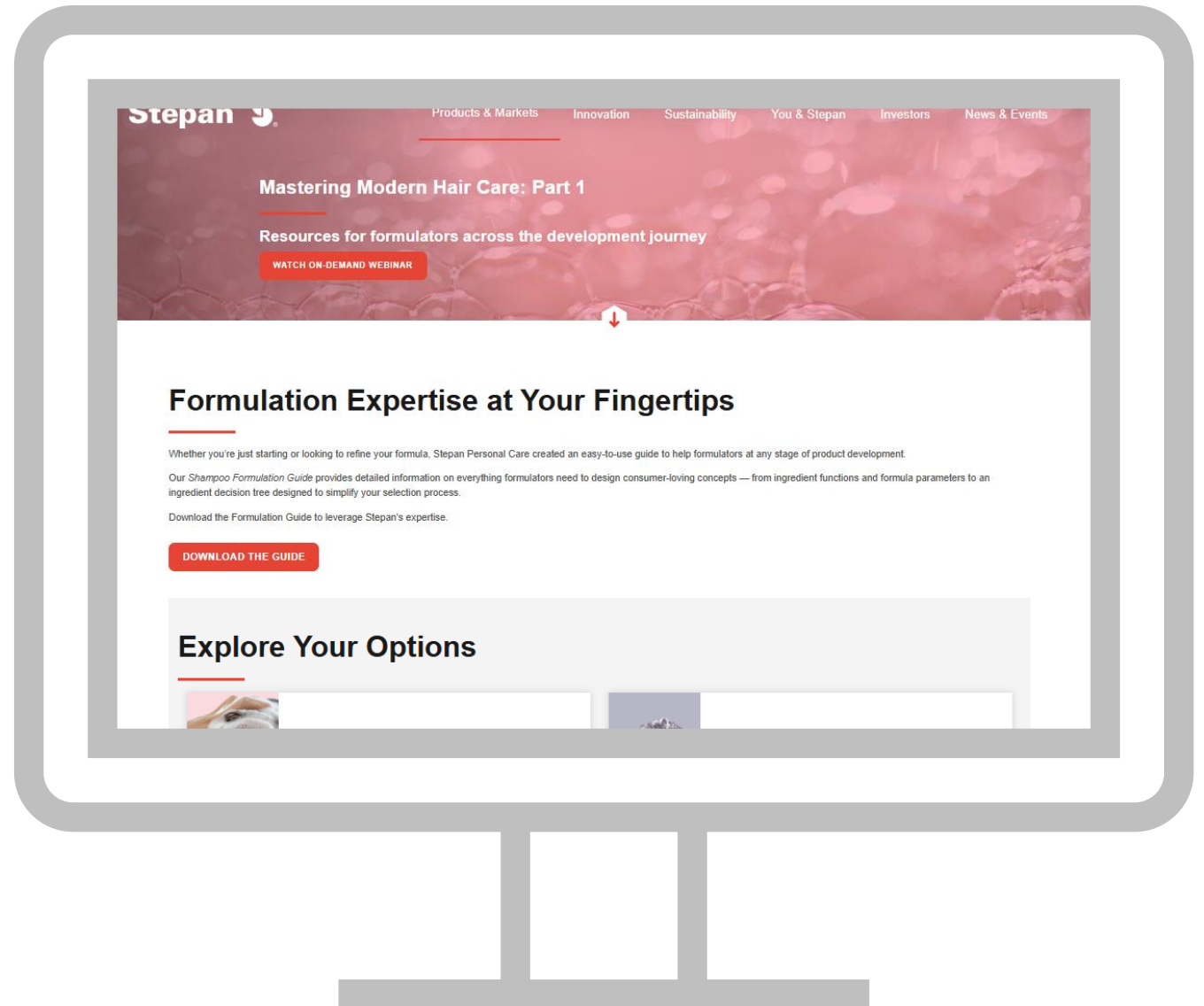
Presented by

Cyril Bajracharya, Renata Butikas,
& Geovanna Belini

October 16, 2025



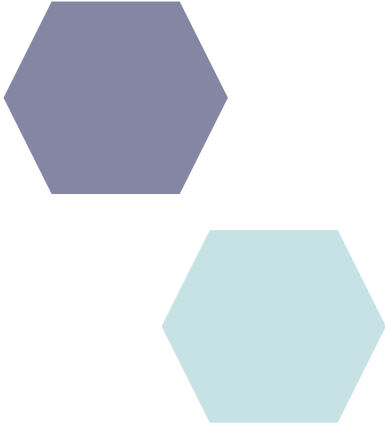
Did You Miss Part 1?



Agenda

Objectives

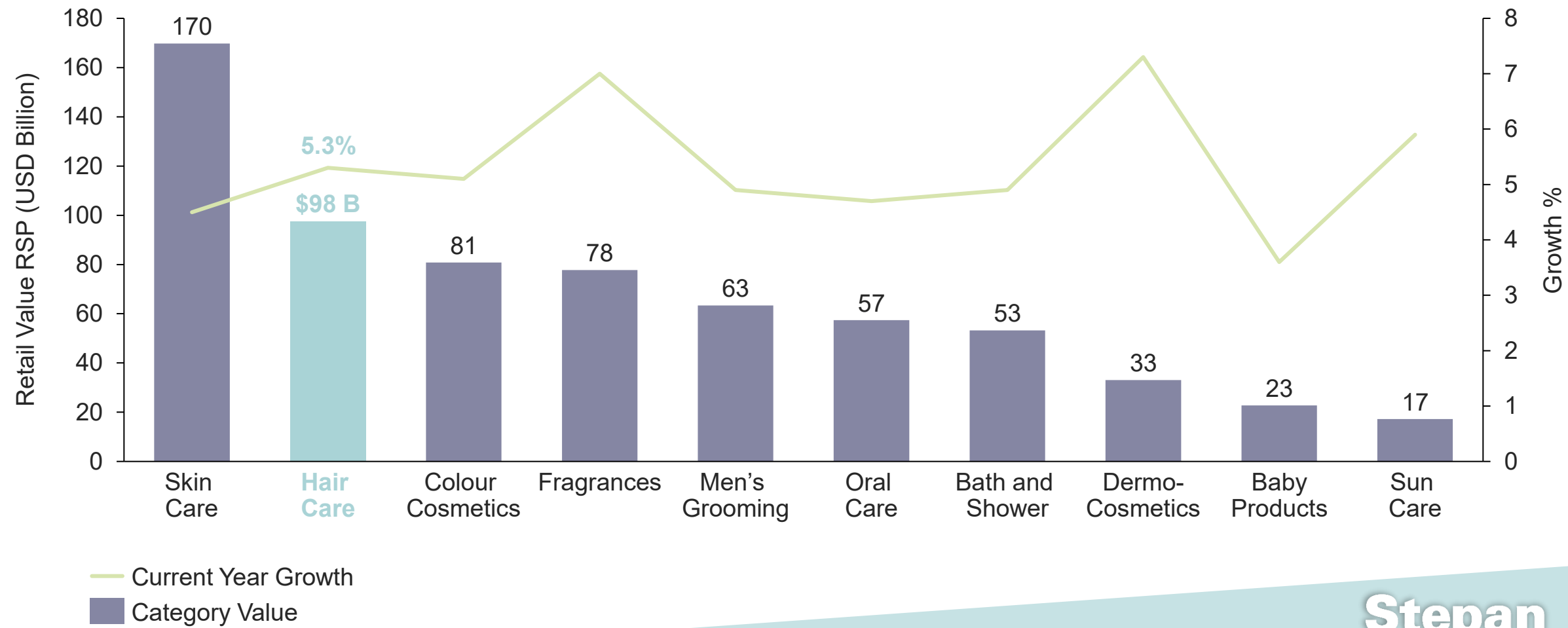
- 1 Global hair care market dynamics
 - 2 Popular conditioner claims
 - 3 Strategies for aligning product development with consumer needs
-
-  Market Insights
 -  Science-Backed Substantiation
 -  Empowering Formulation



Exploring the world of modern hair care

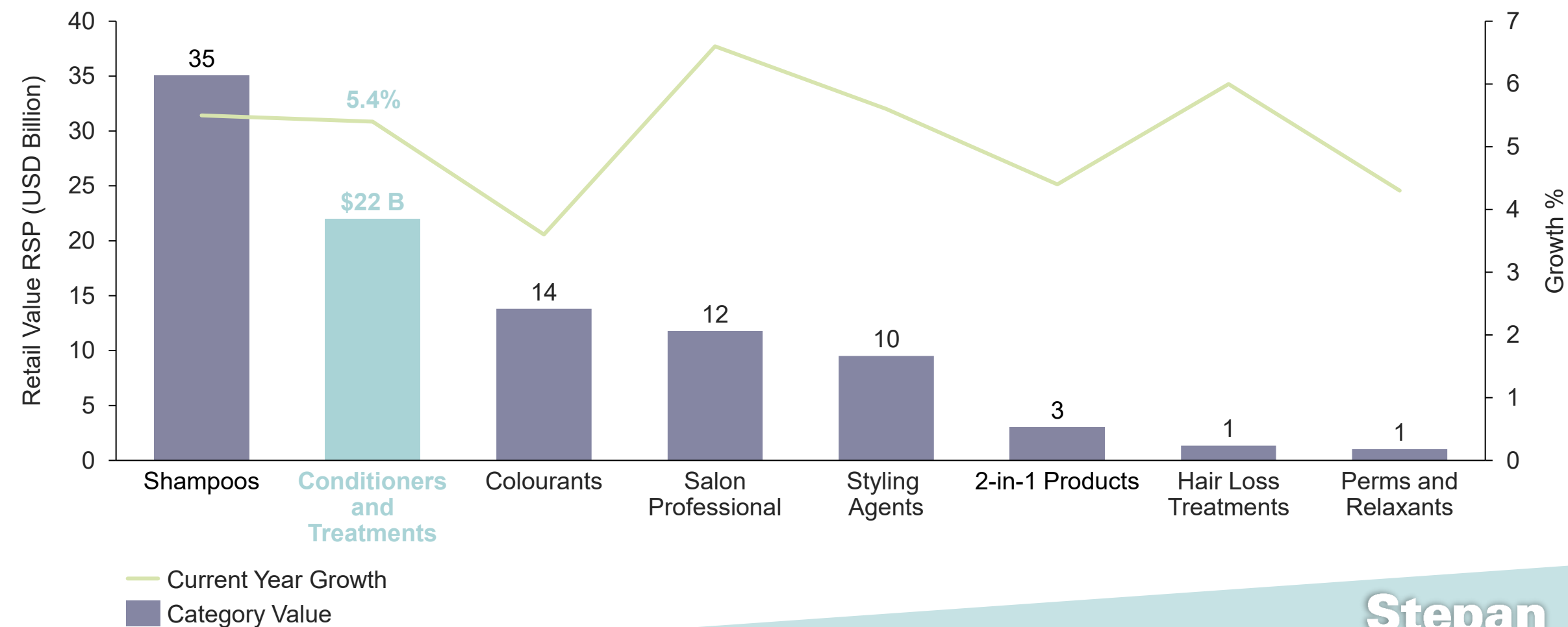
We're working with the silver medalists today

Global Sales of Beauty and Personal Care by Category
Euromonitor 2025



We're working with the silver medalists today

Global Sales of Hair Care by Category
Euromonitor 2025



Trends shifting to new era of hair care: Smart & Personal



Skinification

Adopting skincare ingredients, formats, and claims



Personalization & Efficacy

Tailored solutions with data-backed claims

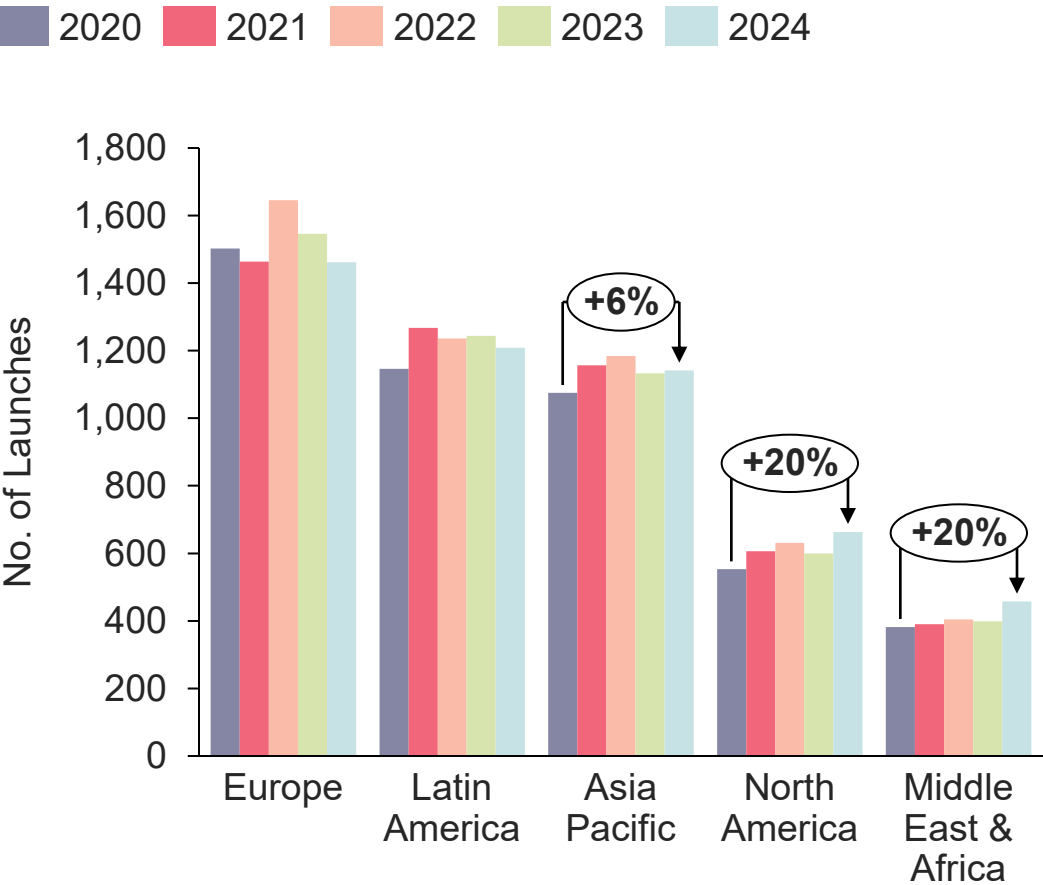


Premiumization

Willingness to invest in hair health and self-care

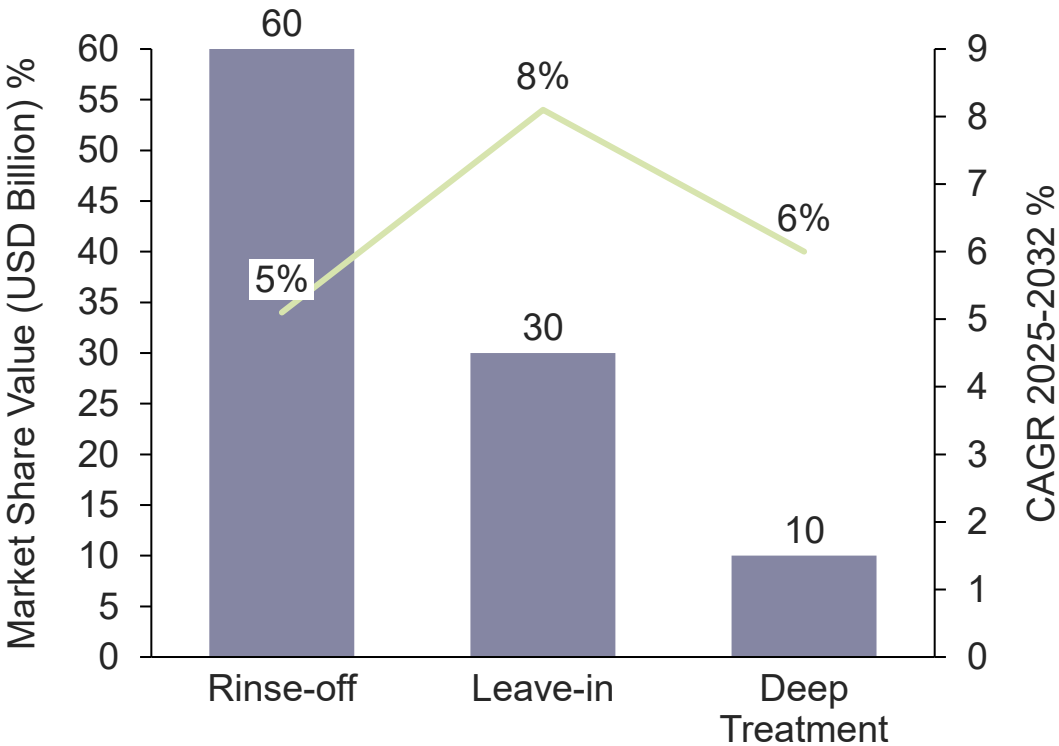
Conditioners are growing with various types

Global Conditioner Launches by Year
Mintel GNPD 2025



Global Conditioner Segmentation by Type
Grand View Research^{1,2}, Mintel³

55% of salon professionals report increased demand for leave-ins over rinse-offs



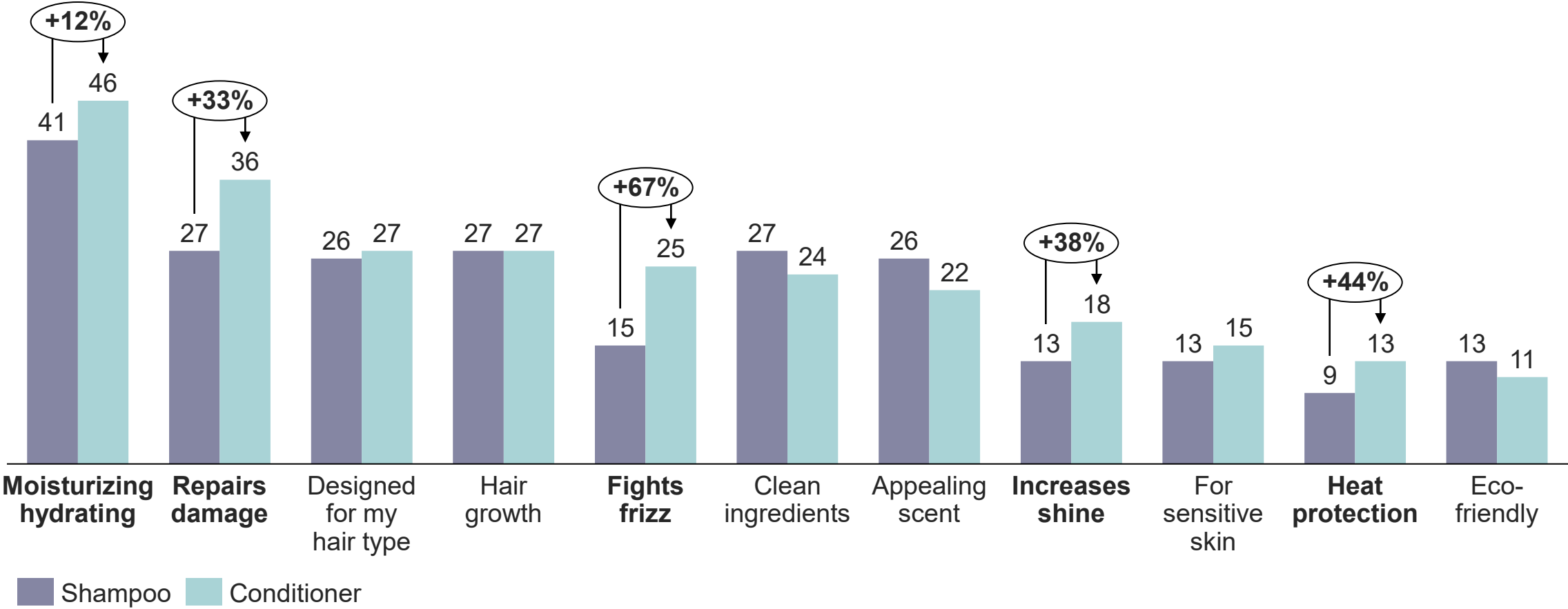
¹ Grand View Research. Beauty and Personal Care Products Market Report, 2030.
² Grand View Research. Personal Care Market Size, Share, Trends | Global Industry Report 2025.
³ Mintel. Shampoo and Conditioners – Market Dynamics.

Poll Question

- How many new conditioner launches are you working on this year?
 - A. 1 – 2
 - B. 3 – 5
 - C. More than 5!
 - D. None, we're working on something else

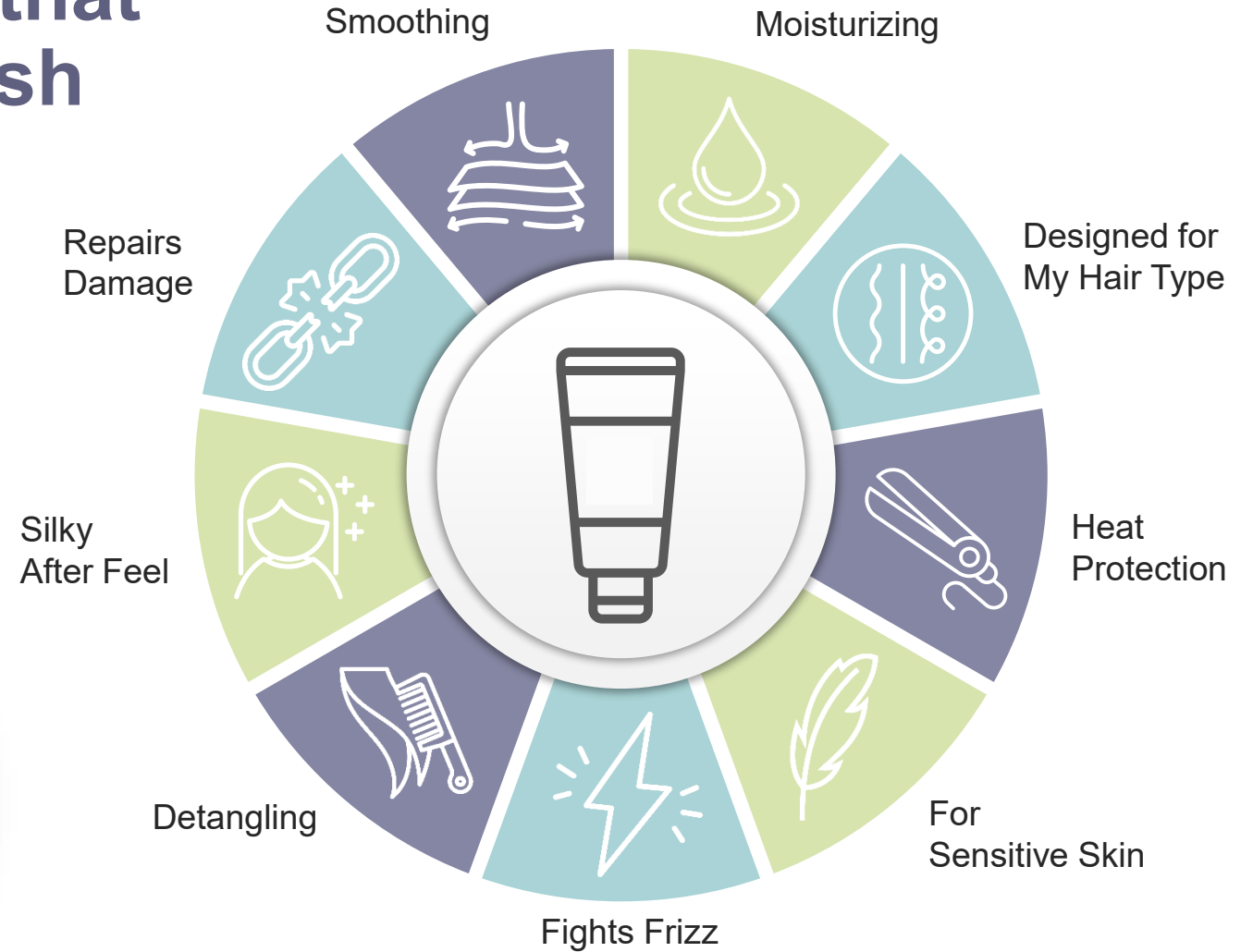
Hair care consumers demand more from their conditioners

% of Respondents Seeking Benefits by Subcategory
Mintel, Kantar Profiles January 2025



958 US internet users aged 18+ who use shampoo products
957 US internet users aged 18+ who use conditioning products

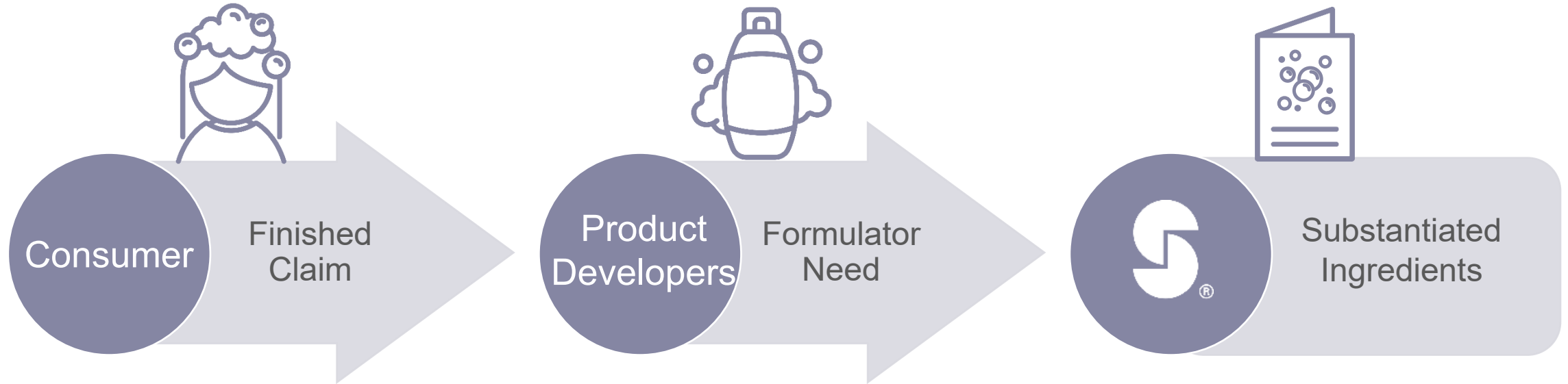
Formulators are challenged with crafting conditioners that satisfy every consumer wish



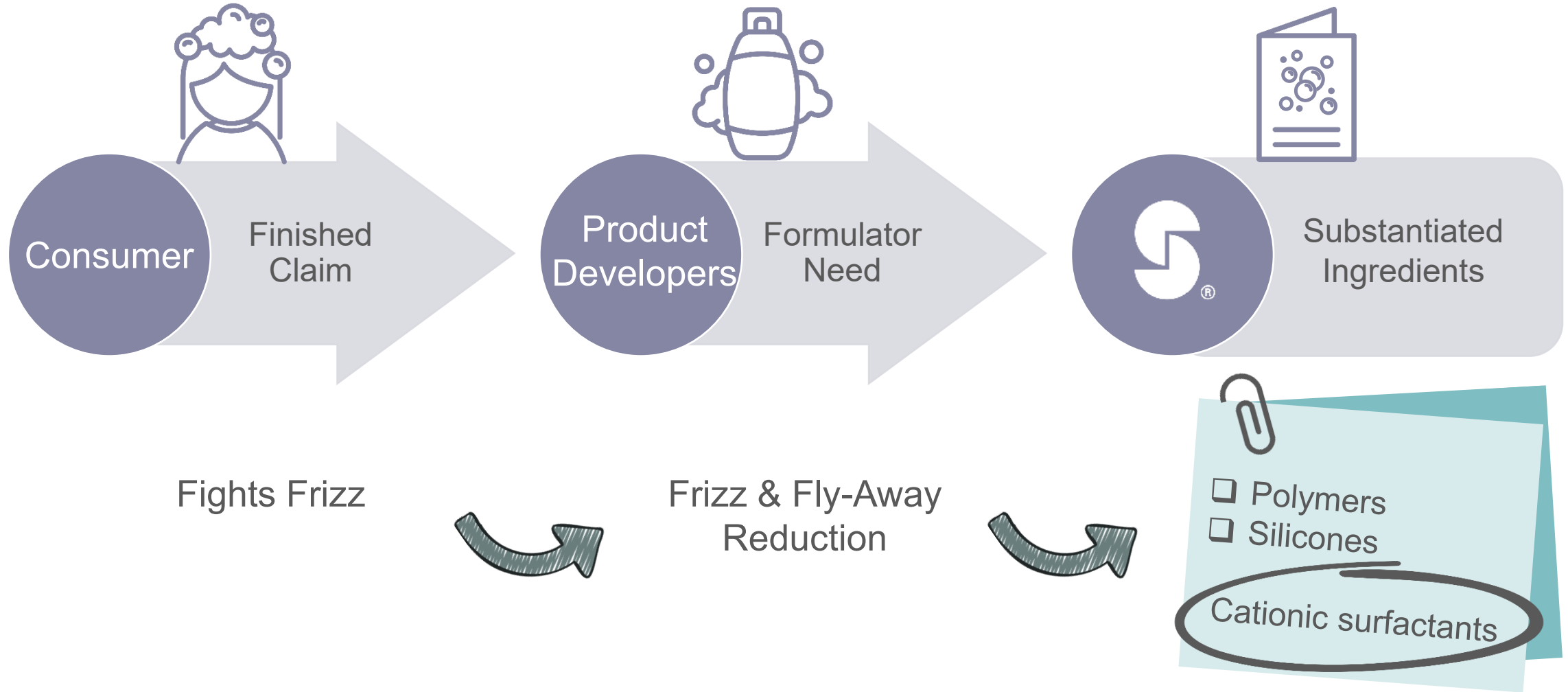
Poll Question

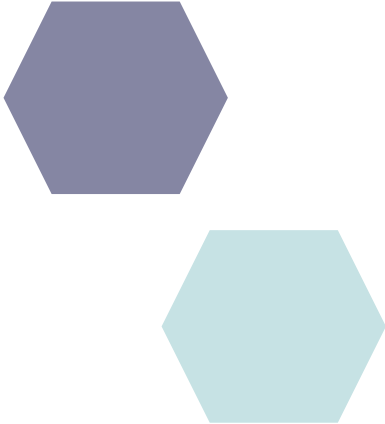
- What is your most challenging conditioner claim to formulate for?
 - A. Moisturizing
 - B. Anti-frizz
 - C. Fights damage
 - D. Detangling
 - E. Heat protection
 - F. Other

Transform your conditioner game with Stepan's proven formulation techniques and substantiation



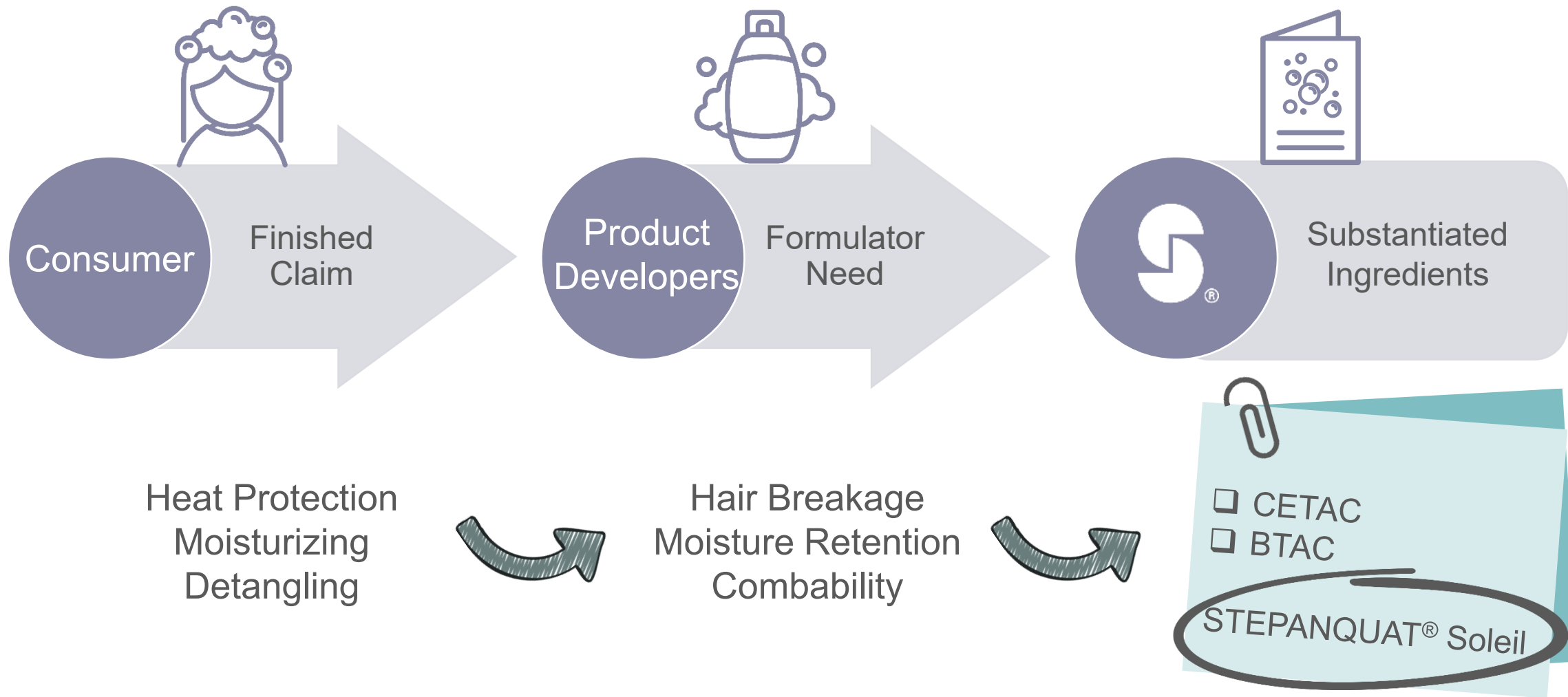
Transform your conditioner game with Stepan's proven formulation techniques and substantiation





Formulating for Heat Protection, Moisturizing & Detangling

Formulating for top conditioner claims



The clever chemistry behind STEPANQUAT Soleil

INCI Name

Dioleoyl ethyl Hydroxymethylmonium
Methosulfate (and) Sunflower Seed
Oil Glycerides

Appearance

Pale amber viscous liquid

Actives

100%



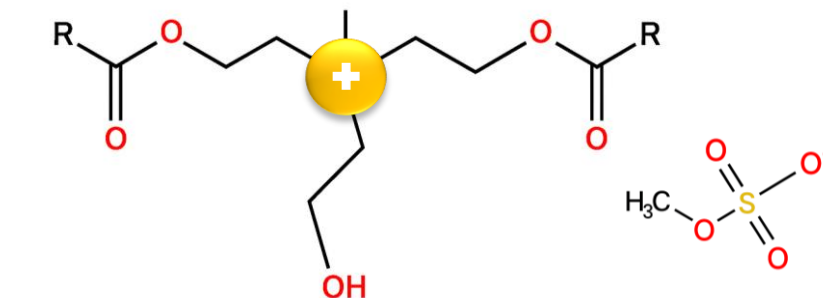
Substantive with no build-up
Non-GMO sunflower oil



88% Bio-based
Readily biodegradable



No use restrictions
Mild and hypoallergenic



Dioleoyl ethyl Hydroxymethylmonium
Methosulfate



Sunflower Seed Oil Glycerides



Natural Conditioning Agent

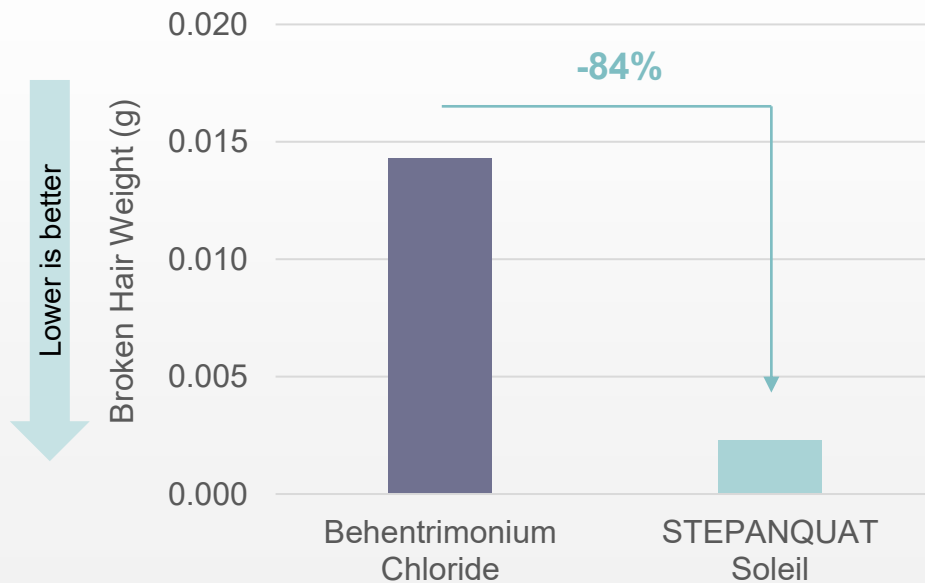


Formulate against damaged hair with ease

Heat Protection



STEPANQUAT Soleil demonstrates significantly lower breakage of hair after flat ironing and combing compared to the industry conditioner benchmark.

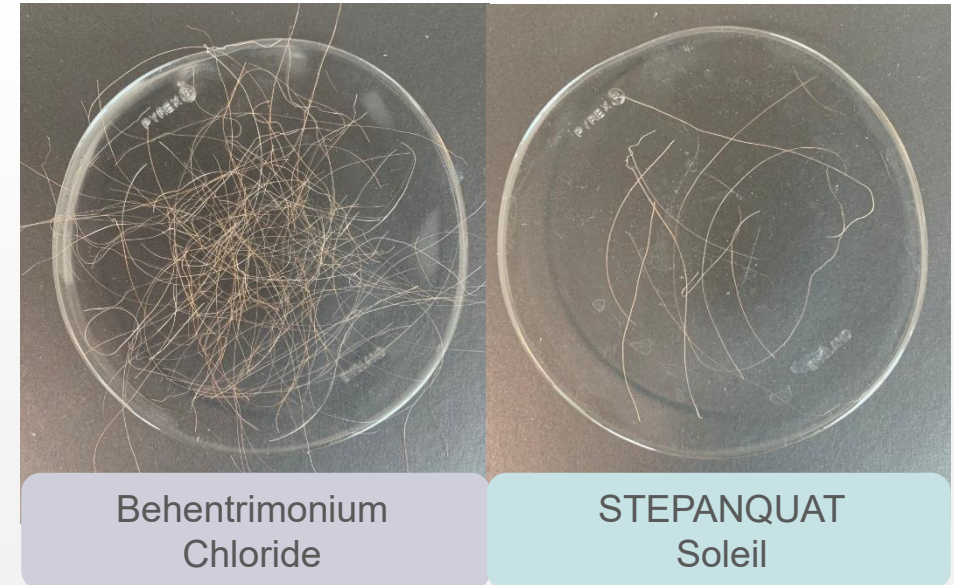


Treated Type 2 hair tresses washed and dried at RT overnight. Dried tresses flat ironed (230 °C) 20 strokes and vigorously combed 50 strokes with fine-tooth comb.
Conditioner formula by weight: 6% Cetearyl Alcohol, 2% Steareth-20, 2% Conditioning active, q.s. DI water.

Hair Breakage



STEPANQUAT Soleil demonstrates visually less hair loss compared to the industry conditioner benchmark.

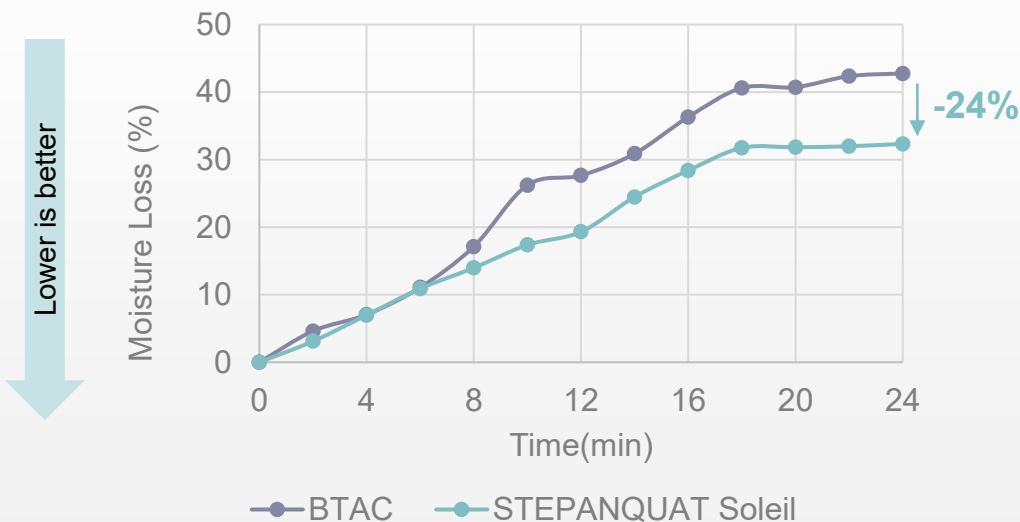


Check off hydration and smoothing hair claims

Moisture Retention



STEPANQUAT Soleil significantly outperforms the benchmark in reducing moisture loss, even at low use level, resulting in noticeably softer strands.

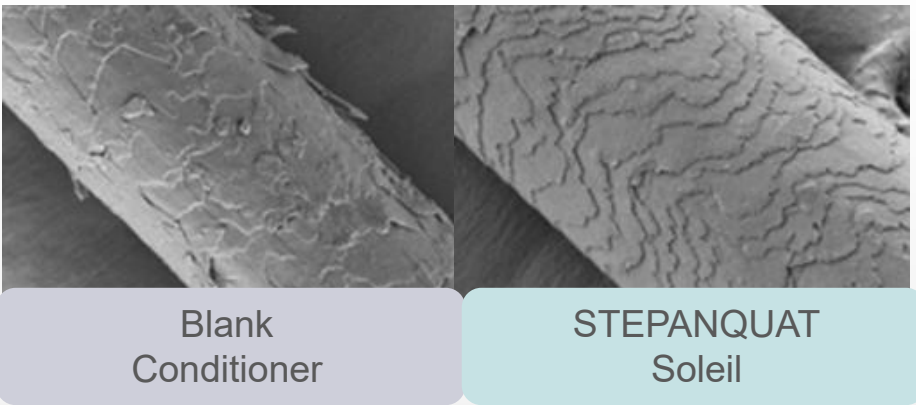


Treated Type 2 hair tresses washed and dried at RT overnight and initial weight measured. Dried tresses kept in oven at 40 °C and weight measured every 2 min.
Conditioner formula by weight: 6% Cetearyl Alcohol, 2% Steareth-20, 2% Conditioning active, q.s. DI water.

Smoothing



STEPANQUAT Soleil visibly smoothens dry, thirsty hair ensuring an effective conditioning product when formulators need to wow consumers.



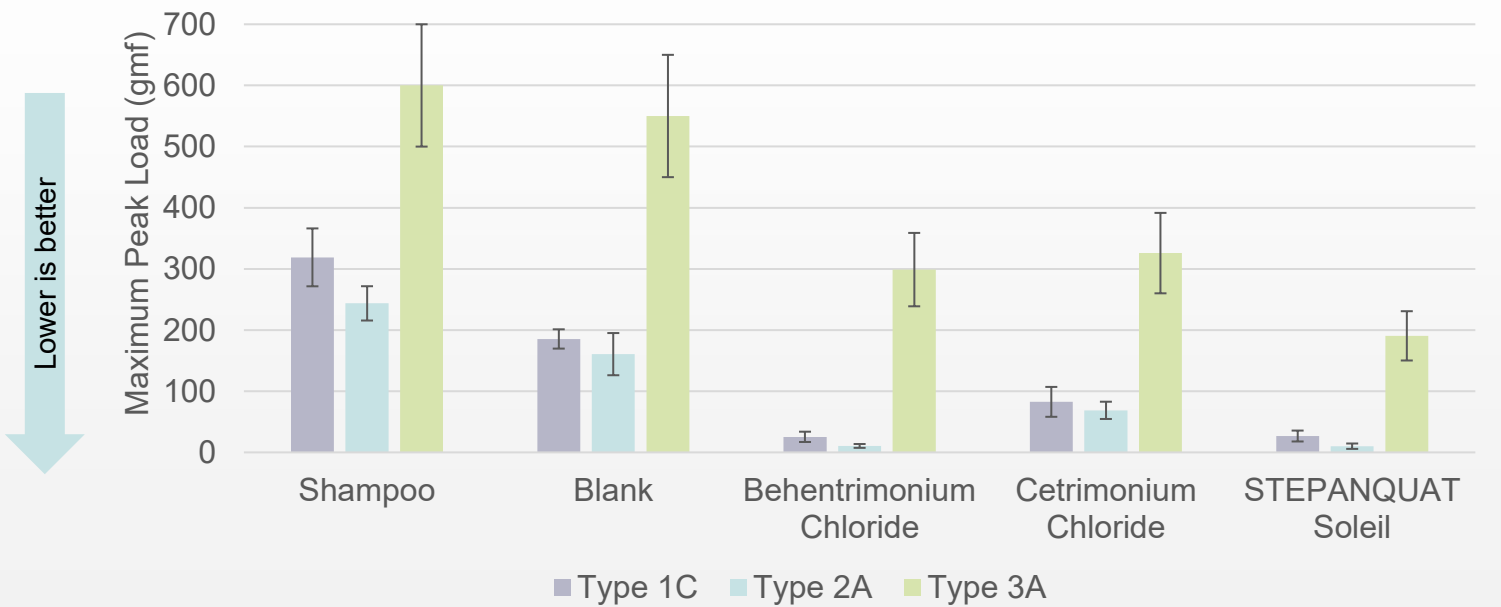
Scanning Electron Microscopy (SEM) images.

Effortlessly design formulas for any hair type

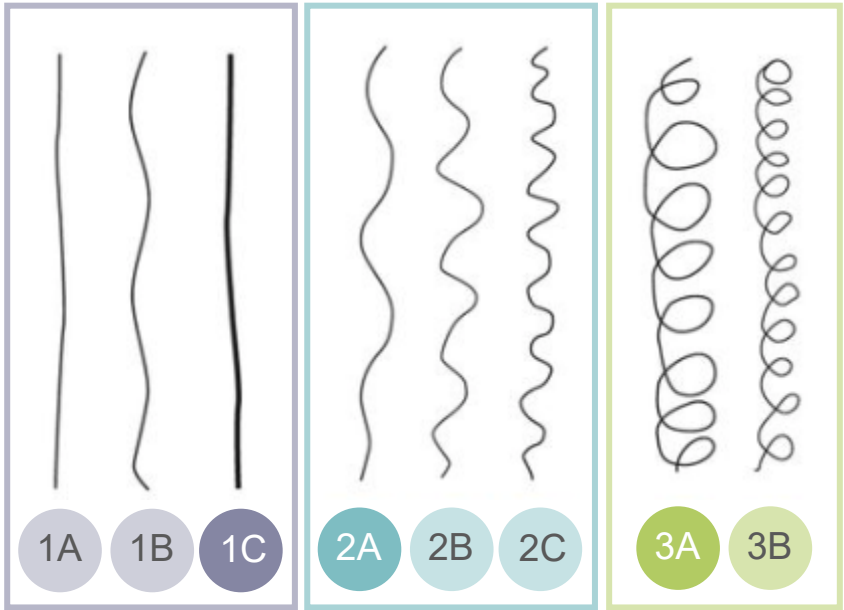
Combability



STEPANQUAT Soleil conditions as well as or better than leading conditioning agents. The wet combing performance on various hair types allows for formulation flexibility.



Andre Walker Hair Typing System¹



Treated hair tresses washed and treated. Combability measured by Dia-Stron MTT175, where gram-force (gmf) is the maximum force needed to comb through tress. Test formula by weight: 2% active conditioning agent, 2.0% Cetyl Alcohol, 0.7% Hydroxyethylcellulose, 0.5% Potassium Chloride, 0.1% preservative, q.s. D.I. water.

¹ This system is used to categorize natural hair types. Source: TRI Princeton, An Introduction to Hair & Hair Products Webinar.

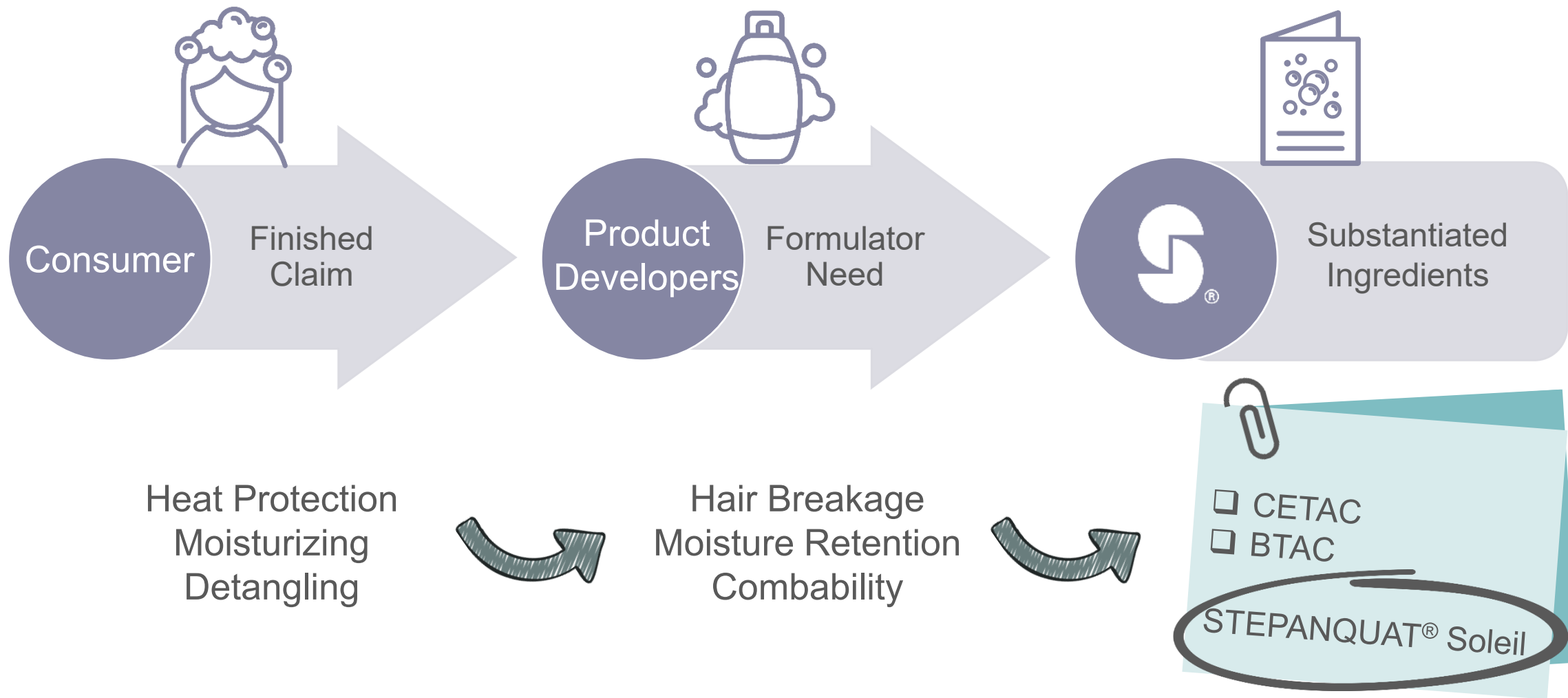
Video #1

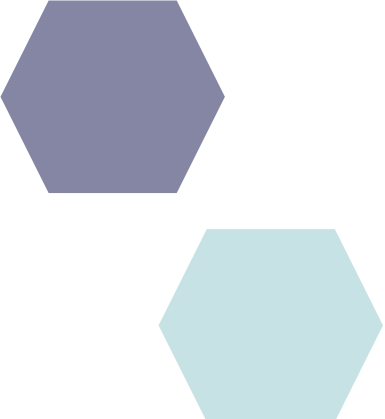
Create smooth, thick conditioner products
with Stepan's **STEPANQUAT® Soleil**

Stepan 
Personal Care



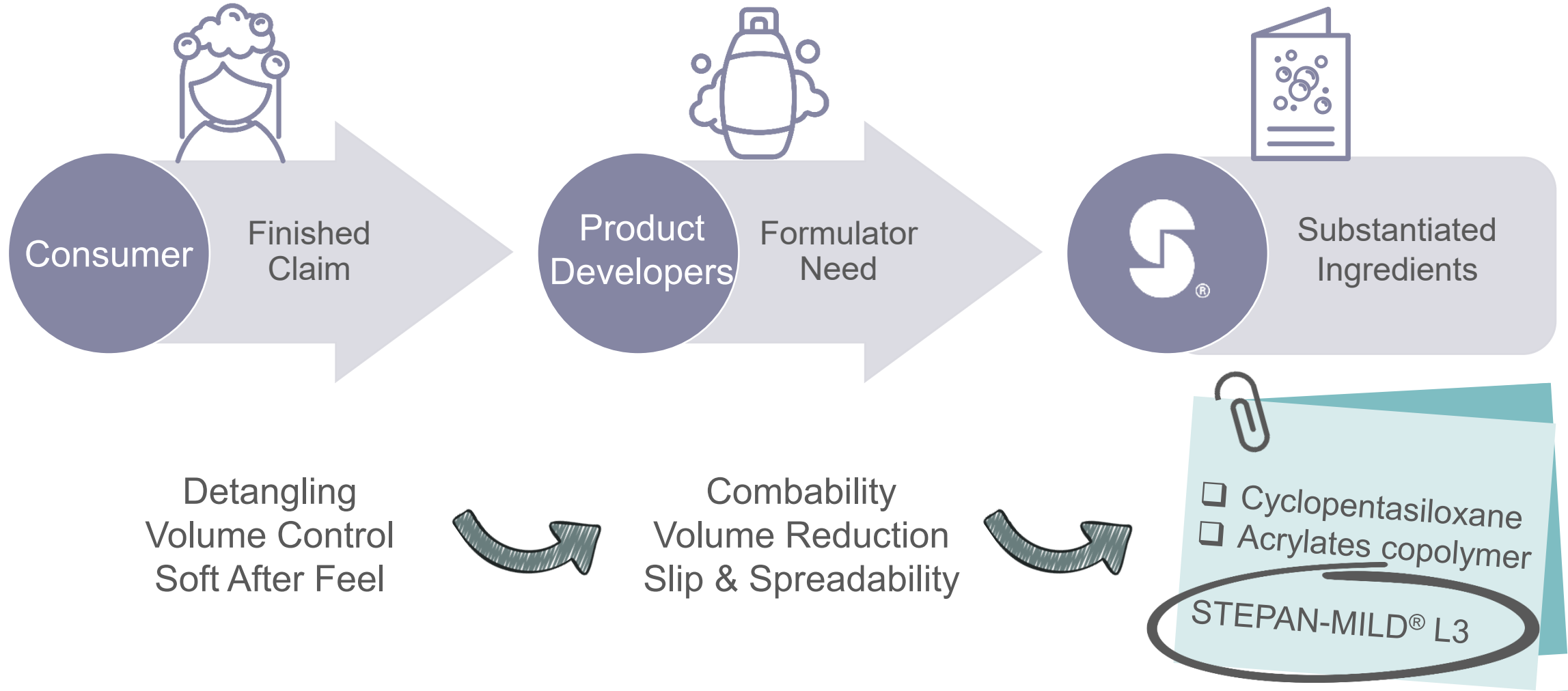
Formulating for top conditioner claims





Formulating for Detangling, Volume Control, Silky After Feel

Formulating for top conditioner claims



The clever chemistry behind STEPAN-MILD L3

INCI Name

Lauryl Lactyl Lactate

Appearance

Clear liquid

Actives

100%



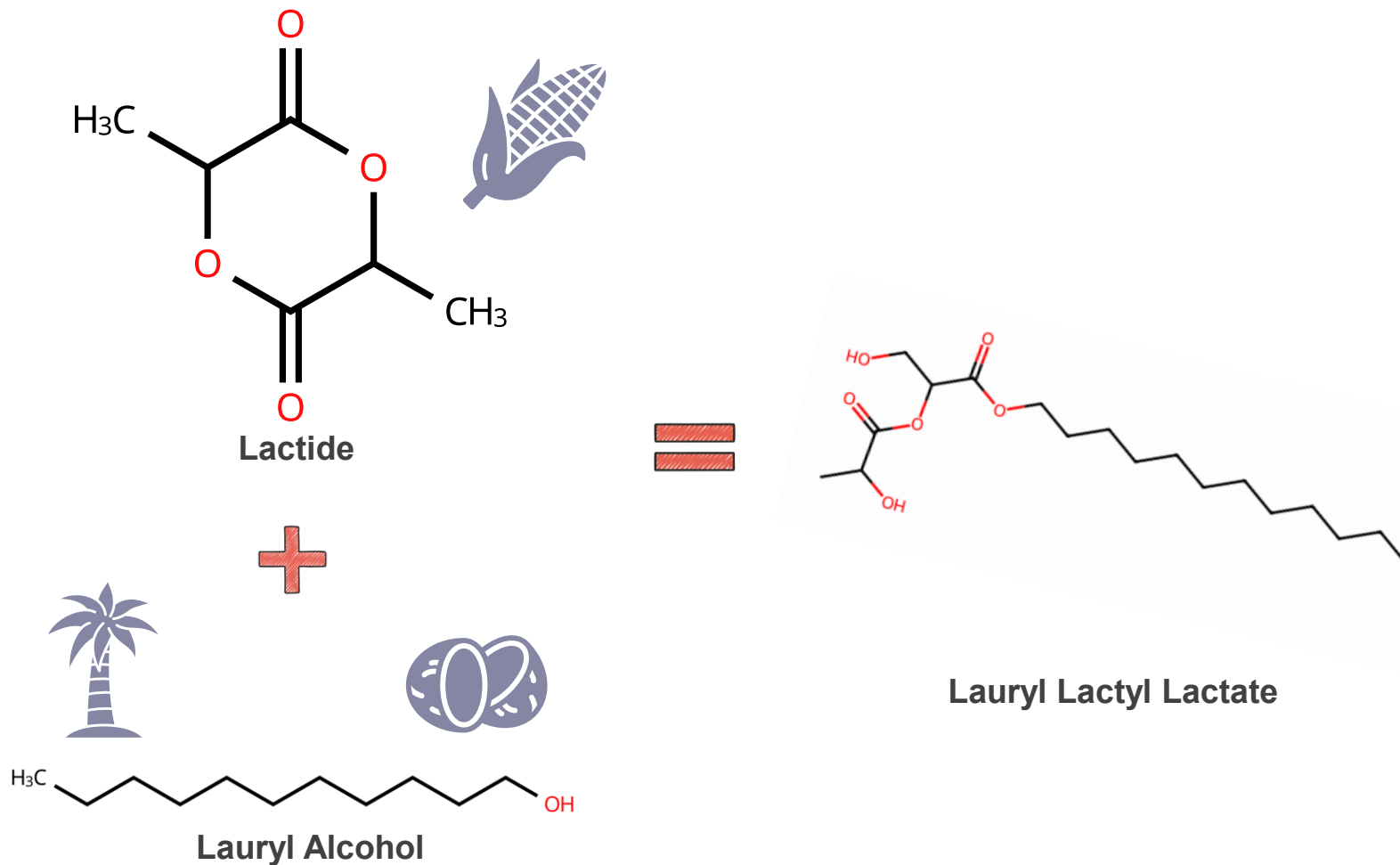
Natural silicone alternative
Soft skin after feel



100% Bio-based
Biodegradable



Easy to formulate
CleanGredients® listed

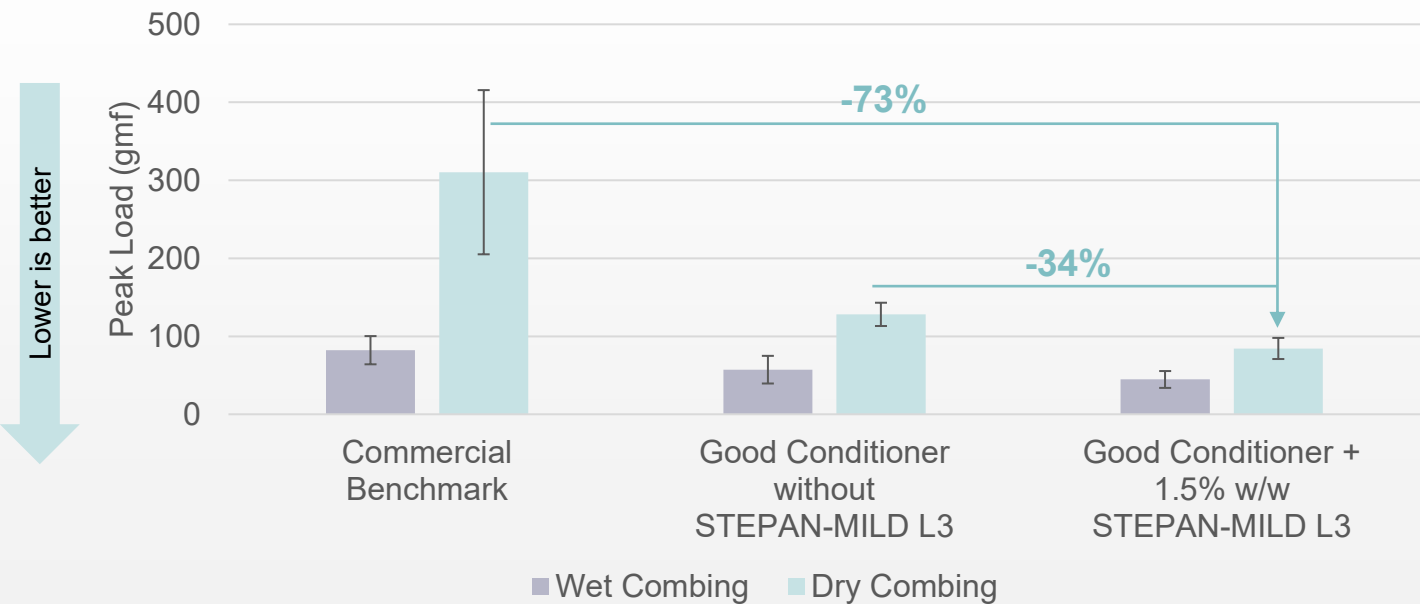


Boost wet & dry combing manageability



Combability

STEPAN-MILD L3 boosts hair manageability by significantly reducing wet and dry combing force, outperforming the benchmark for easier styling products.



Treated Type 2A hair tresses washed and treated. Combability measured by Dia-Stron MTT175, where gram-force (gmf) is the maximum force needed to comb through tress. Conditioner formula by weight: 5% Cetearyl Alcohol, 2% STEPANQUAT® Soleil, 0.9% Shea Butter, 0.2% Vitamin E, 0.8% preservative, 0.2% fragrance, q.s. D.I. water.

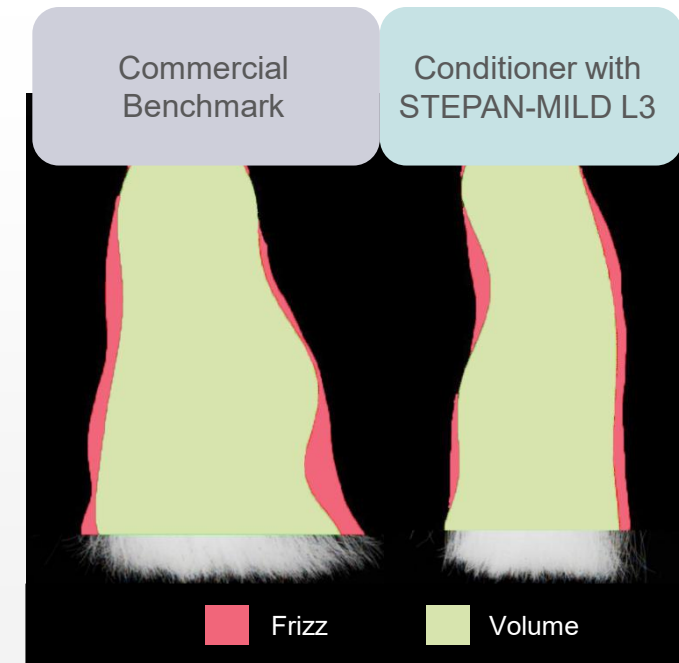
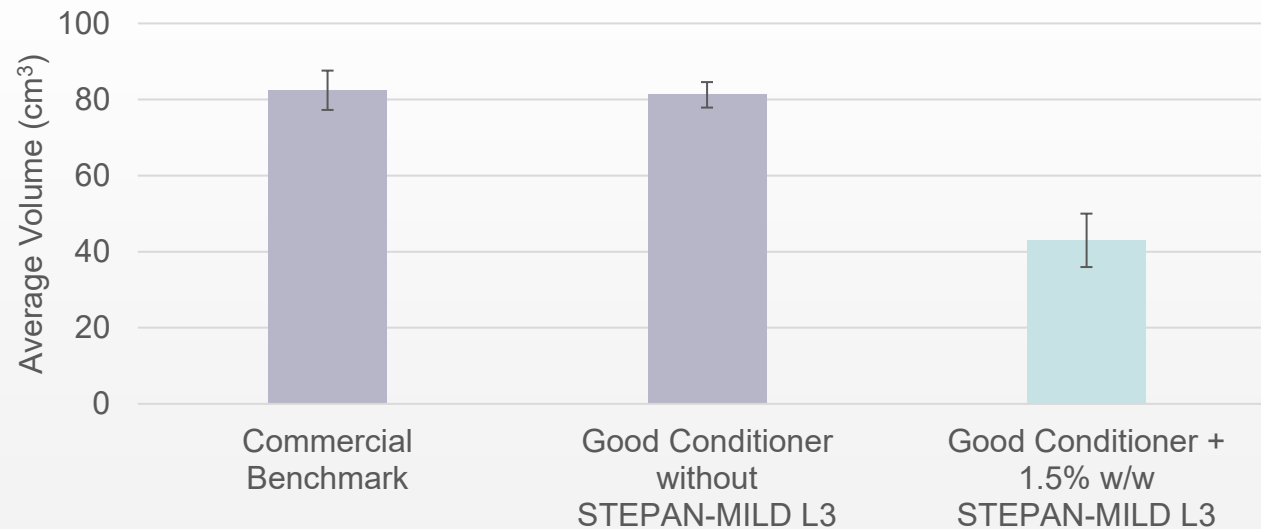


Tackle textured, coily hair with the smoothing effect

Volume Control



STEPAN-MILD L3 helps reduce hair volume after conditioning, an ideal solution for formulators targeting the expanding textured hair care market.



Treated Type 3A hair tresses washed and treated. Volume measured by BOSSA NOVA BOLERO 360.

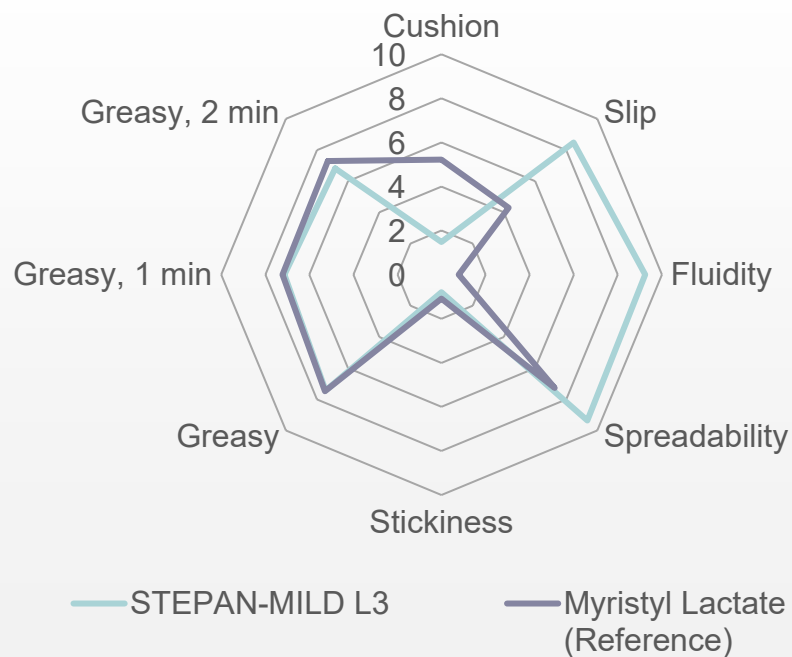
Conditioner formula by weight: 5% Cetearyl Alcohol, 2% STEPANQUAT® Soleil, 0.9% Shea Butter, 0.2% Vitamin E, 0.8% preservative, 0.2% fragrance, q.s. D.I. water.

Support slip and spread across all formula types

Leave-on After Feel



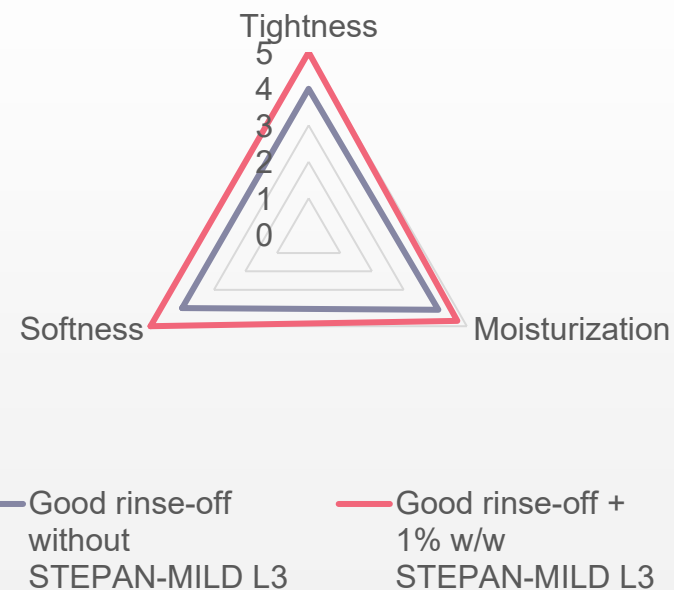
STEPAN-MILD L3 has significantly better slid, fluidity, and spreadability. These silky attributes will provide formulators with hair care products that are light with a satin finish.



Rinse-off After Feel



STEPAN-MILD L3 shows better overall softness and tightness in a rinse-off panel evaluation against the good formulation.

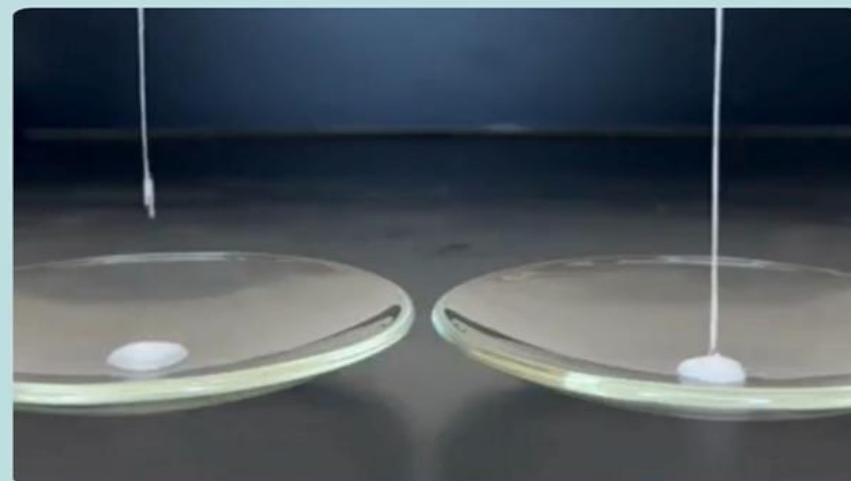


Leave-on sensory analysis on pure ingredient completed by 20 panelists.
Rinse-off sensory analysis on a moisturizing body wash commercial benchmark by 10 panelists.

Video #2

Leave viscosity concerns behind
with Stepan's **STEPAN-MILD® L3**

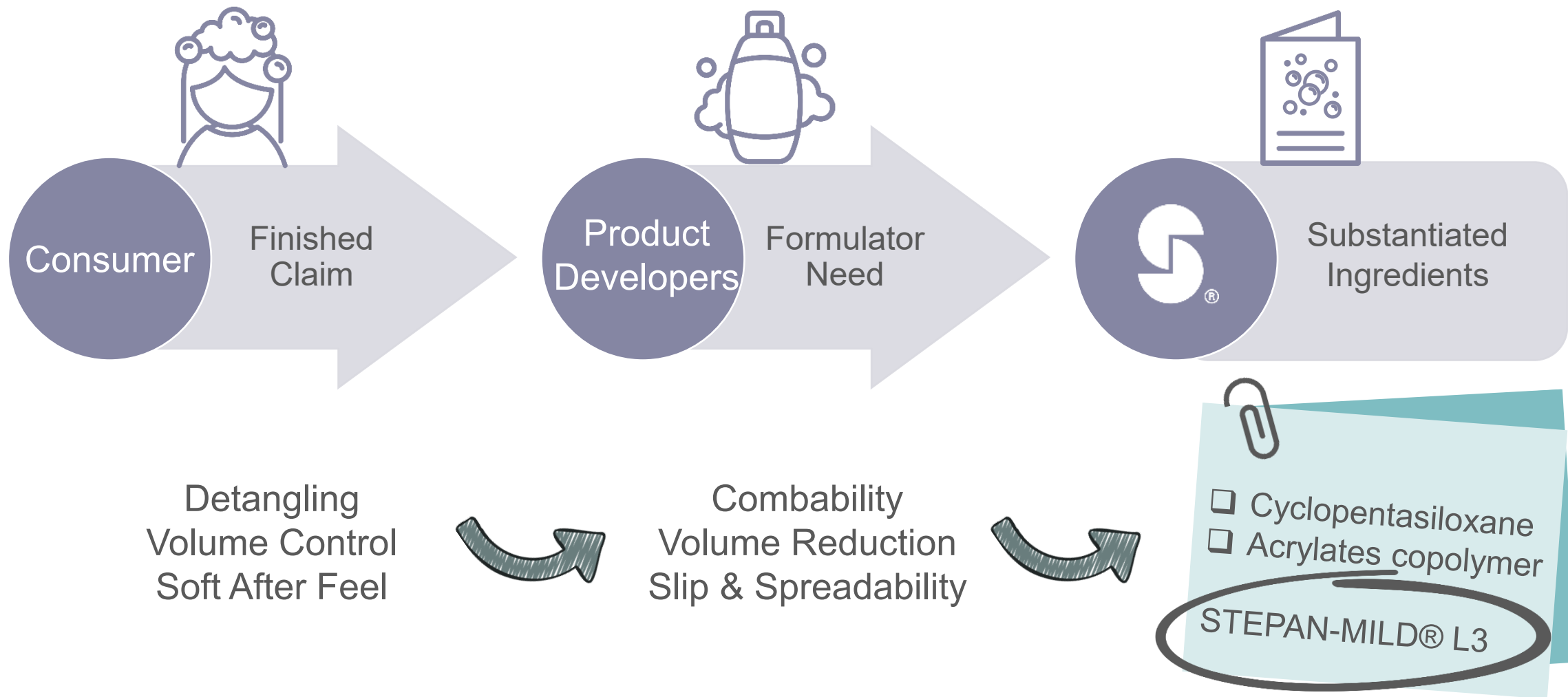
Stepan 
Personal Care

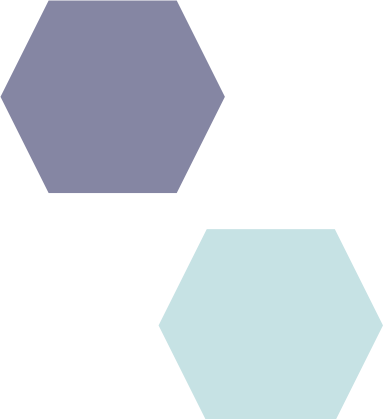


Formula without
STEPAN-MILD® L3

Formula with
STEPAN-MILD® L3

Formulating for top conditioner claims



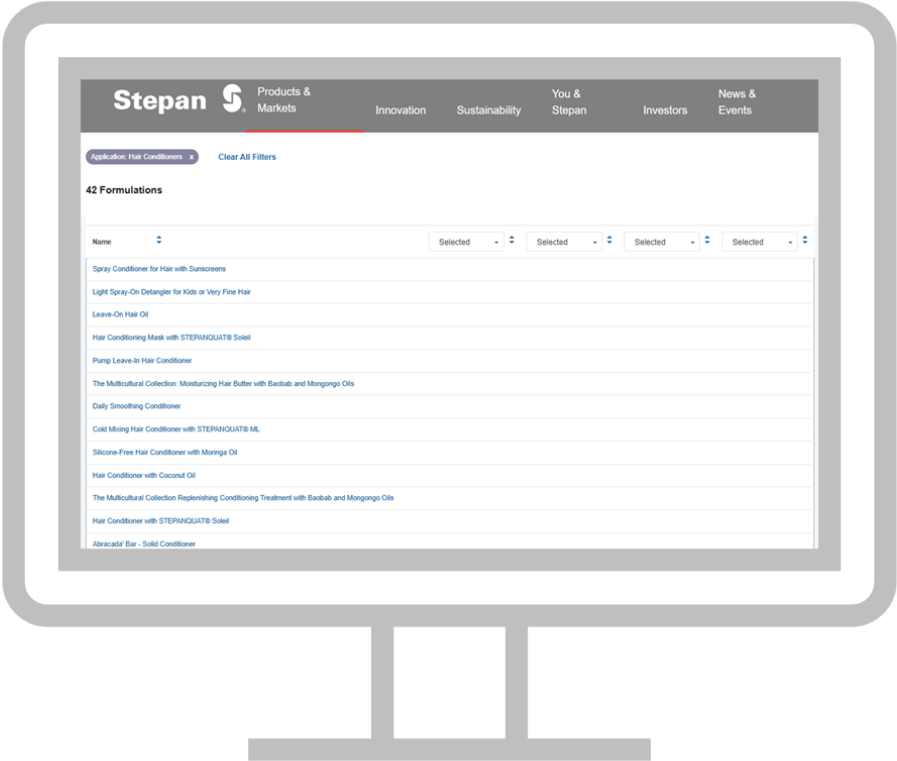
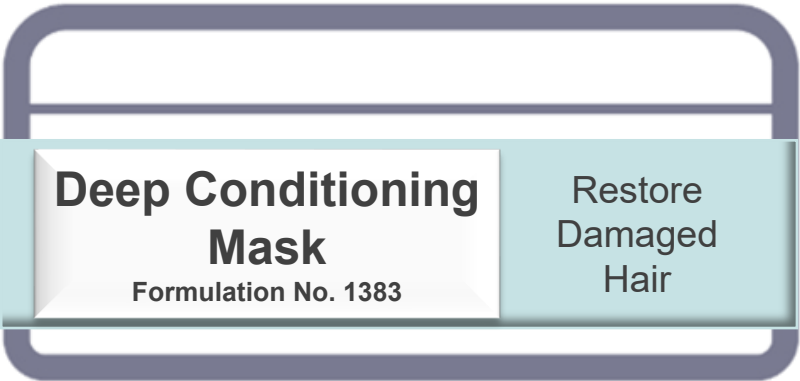


**Wrapping up your journey to
conditioner success!**

Whether you're developing novel formulations or refining your portfolio, Stepan is here to support your hair claim needs!



Formulation inspiration in a bottle, no waiting required



Get additional resources!

Guides, decision trees, claim data and more

Volume Control

STEPAN-MILD-L3 helps reduce hair volume after conditioning, the ideal solution for formulators targeting the expanding textured hair care market, where flow control and manageability is a key.

Product	Volume Control (%)
Control	100
STEPAN-MILD-L1	~85
STEPAN-MILD-L3	~65

Formulation Inspiration

Let Science Inspire your next idea.

Moisturizing Conditioner

Formulation No. 140
Formulations targeting moisturized scalp and hair are essential for the growing market of dry scalp and hair care. STEPAN-MILD-L3 provides the moisture and hydration needed for the hair.

Mango Madness: Yogurt Type

Formulation No. 141
The conditioner is powered by the superior soft feel, enhanced by the resulting easy combing action.

Smooth & Manageable Hair

with STEPAN-MILD® L3

Smooth, detangled and manageable hair is a top priority for today's hair care consumers, especially in texture hair systems where control and conditioning are key. STEPAN-MILD-L3 is a natural, easy-to-use solution that empowers formulators to deliver visible performance without compromising on clean beauty standards. Formulate with confidence, knowing STEPAN-MILD-L3 makes hair manageable by measure.

Natural isle alternative
Soft skin after feel

100% Bio-based
Biodegradable

Easy to formulate
CleanGredients

INCI Name: Lauryl Lactyl Lactate
Appearance: Clear Liquid
Actives: 100%
Preservative: Not Required

An ASPC most reduced certified version of this product is available.

Wet & Dry Combability

STEPAN-MILD-L3 boosts hair manageability by significantly reducing wet and dry combing force, outperforming the benchmark for smoother, easier styling when creating easy-to-use formulations designed to improve the consumer.

Product	Wet Combing (g)	Dry Combing (g)
Control	~450	~150
STEPAN-MILD-L1	~350	~100
STEPAN-MILD-L3	~250	~75

73% reduction in dry combing force.

Visualize the smoother, more aligned hair surface after conditioning with STEPAN-MILD-L3.

Choose Based on Key Needs — Ingredient Decision Tree

Start with your formula's needs and use the decision tree below to select surfactants for the base (Step 1) and additives to enhance the auxiliary performance (Step 2). For detailed product options to personalize your formula, reach out to our Stepan formulation experts.

Step 1: Base Surfactants

Surfactant-free
STEPANQUAT® Hela
Sulfate-free
STEPANQUAT® Hela
Sulfate-free
STEPANQUAT® Hela

Step 2: Feel Enhancers

Light, Fresh
STEPAN-MILD® L3
Soft touch
NEOBEET®
Conditioner

Conditioners Formulation Guide

Designed for personal care formulators, this guide provides detailed information on all aspects of conditioner formulation — from ingredients, functions and formula parameters to an easy-to-use ingredient decision tree. Use Stepan's formulation expertise as a handy reference throughout your product development journey.

Start with the Basics — Formula Breakdown

Each ingredient in a conditioner formula is crucial for achieving desired performance targets. Below you'll find the key ingredient types, their functions and recommended use levels to help create a well-balanced shampoo.

Function	Ingredient Type	Formula Wt. %
Core of hairdressing	Water	60-80
Conditioning and styling	Coconut-derived	7-10
Protein-rich and conditioning	Hydrolyzed Protein	1-2
Soft and easy-to-apply	Long Chain Fatty Alcohols	2-5
Emulsifier and conditioning	Emulsifier	0.5-1
Conditioning and styling	Conditioning Agent	0.5-1
Conditioning and styling	Conditioning Agent	0.5-1

Getting From Lab to Shelf

The next step is to think about the 3 P's: Packaging. Here you'll find the and the

Procedure

1. Start with water
2. Add conditioning agents
3. Add surfactants
4. Add conditioning agents
5. Add conditioning agents
6. Add conditioning agents
7. Add conditioning agents

Hair Conditioners Product Line Overview

Explore and easily choose from our full range of hair conditioner agents and elevate your personal care formulations.

	AMMONYX® 4	AMMONYX® CETAC-32	STEPANQUAT® GA 80	STEPANQUAT® Hela	STEPANQUAT® ML	STEPANQUAT® Soleil
INCI Name	Ammonium Chloride	Ammonium Chloride	Dimethylamylamine Hydroxyethylamine Hydroxyethylamine	Dimethylamylamine Hydroxyethylamine Hydroxyethylamine	Dimethylamylamine Hydroxyethylamine Hydroxyethylamine	Dimethylamylamine Hydroxyethylamine Hydroxyethylamine
Key Characteristics	Economic, used in combination with other agents	Highly synthetic, good for economy to use	Economic, naturally derived, alternative	Naturally derived, best performance, especially for textured hair	Easy handling option with excellent efficiency	Global, naturally derived, best performance
Preservative	None Required	None Required	None Required	None Required	None Required	None Required
Actives %	18	20	50	50	50	100
Form at 20°C	Paste	Clear liquid	Paste (at 20°C)	Clear/gray liquid	Liquid	Clear/gray liquid
Color	Off White	Off White	Off White	Off White	Off White	Off White
Natural Source	Dimethylamylamine	Dimethylamylamine	Dimethylamylamine	Dimethylamylamine	Dimethylamylamine	Dimethylamylamine
Availability	Global	Global	Global	Not China compliant	Global	Global
Biobased %	0	0	0	0	0	88
Sulfate-Free	Yes	Yes	No	Yes	Yes	No
Hair Compatibility	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Additional Functions	Antibacterial	Antibacterial	Antibacterial	Antibacterial	Antibacterial	Antibacterial

Moisture Retention

Minimizing moisture loss is essential for creating products that leave hair soft and healthy. STEPANQUAT Soleil rises to the occasion with its proven ability to reduce hair breakage and moisture loss, making it an ideal choice for systems targeting damaged, over-processed or chemically treated hair.

Time (hours)	Control (%)	STEPANQUAT Soleil (%)
0	100	100
12	~85	~95
24	~75	~90

Repair Damaged Hair

with STEPANQUAT® Soleil

Damaged hair demands more than just conditioning — it requires protection, repair and relief. Since 1996, many conditioning agents offer limited reparative benefits, but only a few steps beyond performance, the industry appears to remain a key challenge for formulators. STEPANQUAT Soleil rises to the occasion with its proven ability to reduce hair breakage and moisture loss, making it an ideal choice for systems targeting damaged, over-processed or chemically treated hair.

Superior conditioning
Sulfate-free with no harshness
Non-GMO and non-toxic

99% Sulfate-free
Readily accepted by all
Non-toxic

No water retention
Mild and hypoallergenic
Versatile formula

INCI Name: Dimethylamylamine Hydroxyethylamine Hydroxyethylamine
Appearance: Clear Liquid
Actives: 100%
Preservative: Not Required

Heat Protection & Hair Breakage

STEPANQUAT® Soleil is globally recognized and performs the leading industry benchmark in reducing breakage and enhancing hair protection after styling. Visualize the difference and formulate with ease without the usual restrictions that often complicate your decision.

Product	Breakage (%)
Control	~100
STEPANQUAT Soleil	~15

84% reduction in breakage.

STEPANQUAT Soleil demonstrates superior hair loss and breakage protection, both from heat styling and styling to enhance protection.

Stepan's experts are your partners for hands-on support

Connect with a chemist from around the globe for personalized demonstrations or formulation troubleshooting!

- Reach out to your local sales representative
- Contact us at go.stepan.com/Conditioners



Thank you!

Get personalized support:
go.stepan.com/Conditioners

Follow us on:

