

Choosing Compassionate Beauty



A Complete Guide to
Vegan Suitable
Ingredients for Personal
Care

Wholesome Vegan Lifestyle



The **vegan food industry** recorded a 20 percent growth over the previous year, with sales peaking at **\$3.3 billion.**

“Beauty follows food

because we use a lot of the same ingredients. If they’re good to ingest, then they’re typically great to apply topically.”

– Tata Harper

The Vegan Beauty Market Overview

“ The majority of consumers may not consume a vegan diet, but the vegan beauty market is on the rise — projected to reach **\$21.4 billion by 2027.** ”



Retailers Making Room for Vegan Beauty



What is Vegan Beauty?

What goes on your body can be just as important as what goes in. Vegan beauty products are created without animal products, by-products or derivatives. Specifically, that includes ingredients like honey, beeswax, lanolin, collagen, albumen, carmine, cholesterol and gelatin.

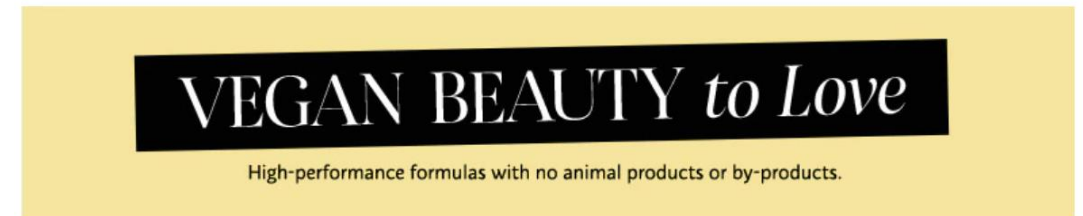
[Shop Vegan Brands](#)



Vegan : Makeup

[Target](#) / [Beauty](#) / Vegan : Makeup (334)

SEPHORA



Vegan beauty edit

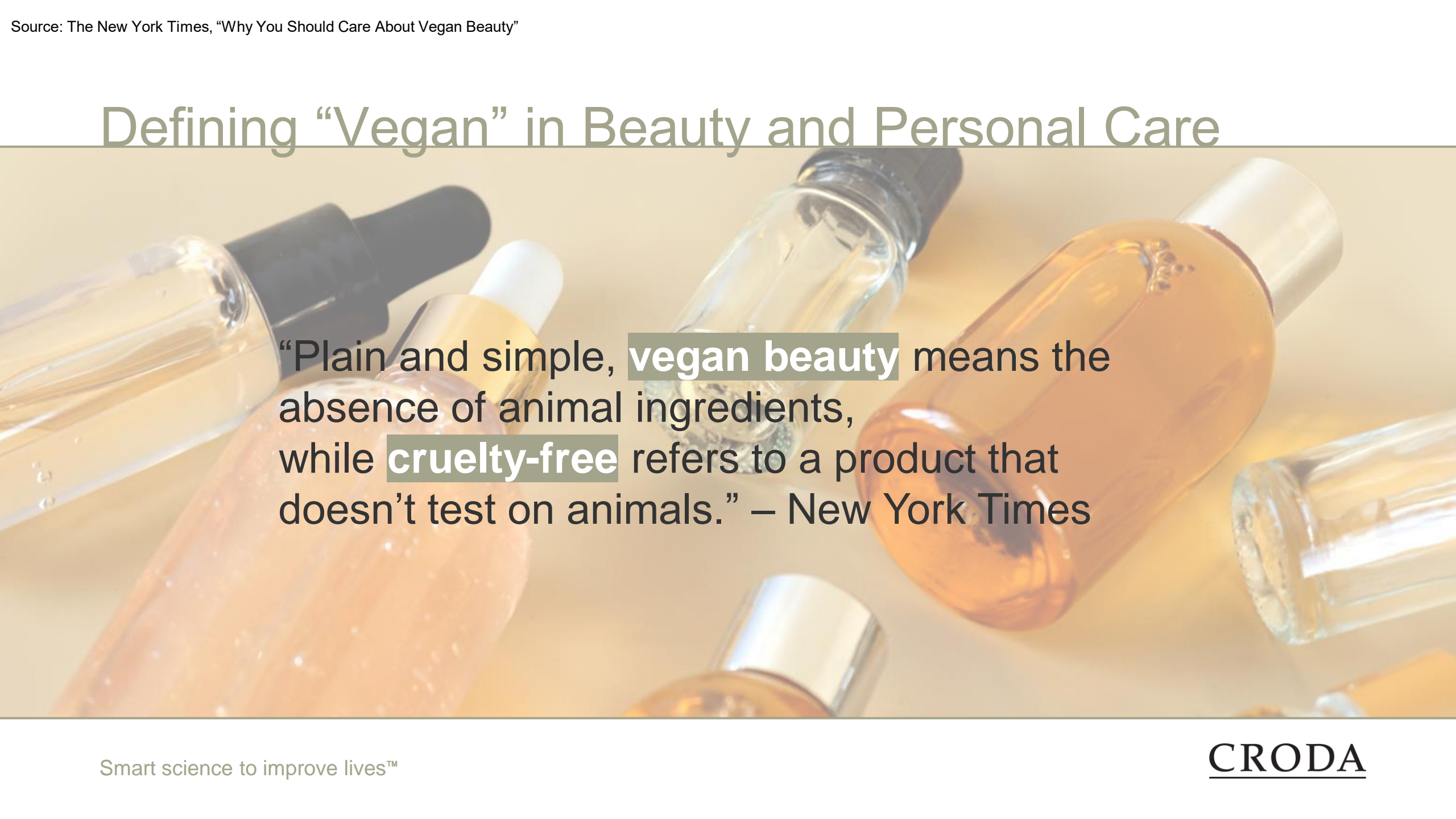
[Discover our favourites](#)



Smart science to improve lives™

CRODA

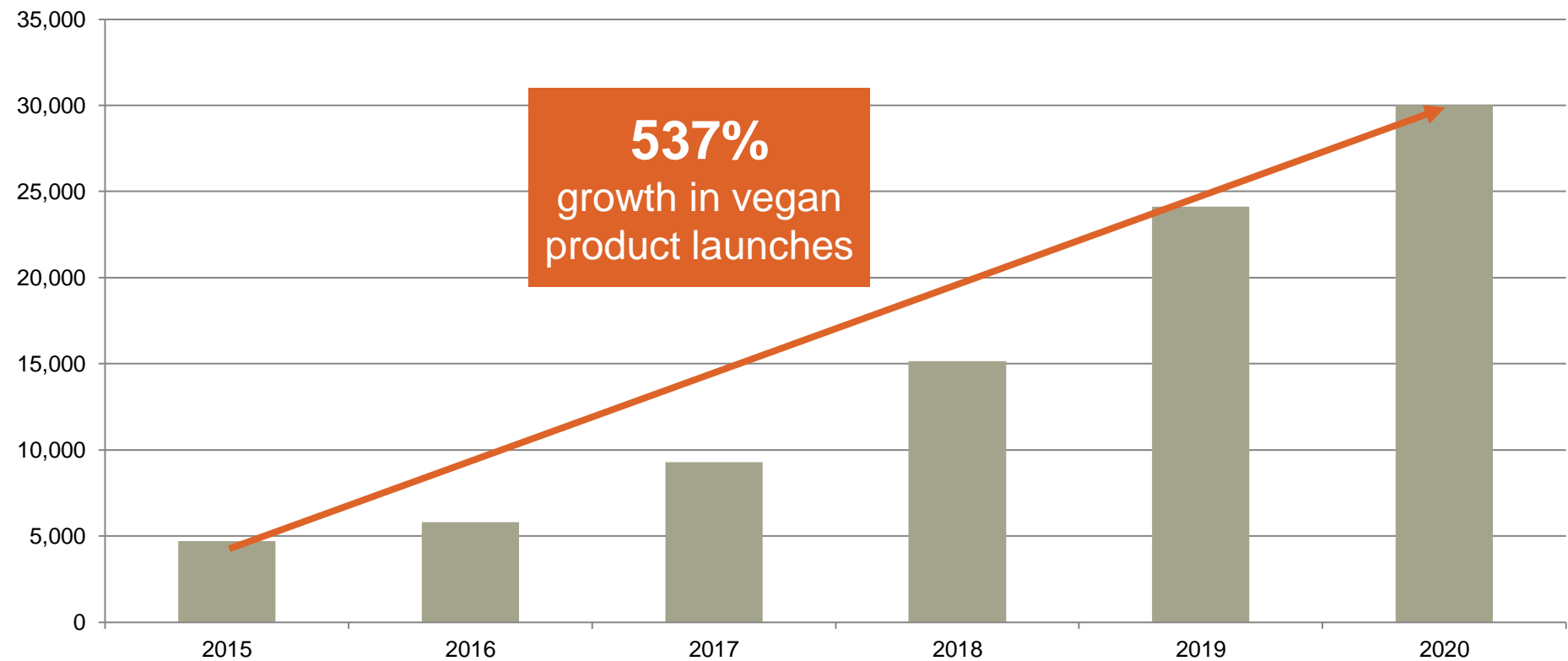
Defining "Vegan" in Beauty and Personal Care



"Plain and simple, **vegan beauty** means the absence of animal ingredients, while **cruelty-free** refers to a product that doesn't test on animals." – New York Times

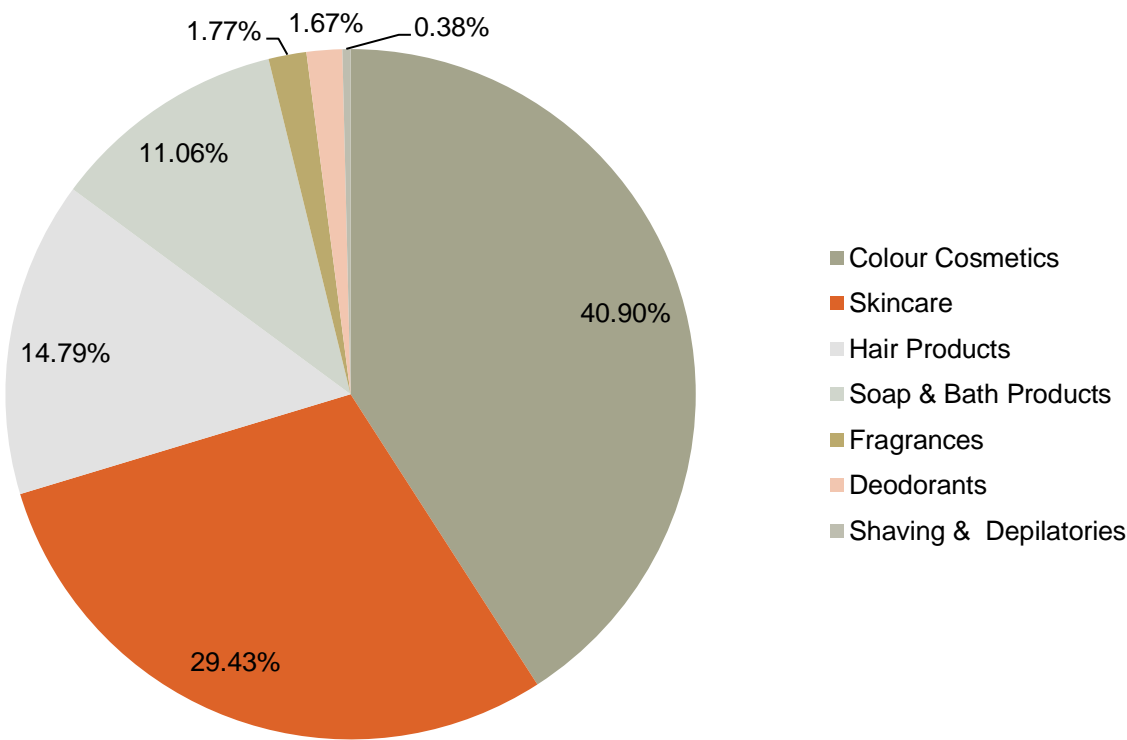
The Rise of Vegan Beauty

Number of Product Launches with “Vegan” Claims 2015-2020

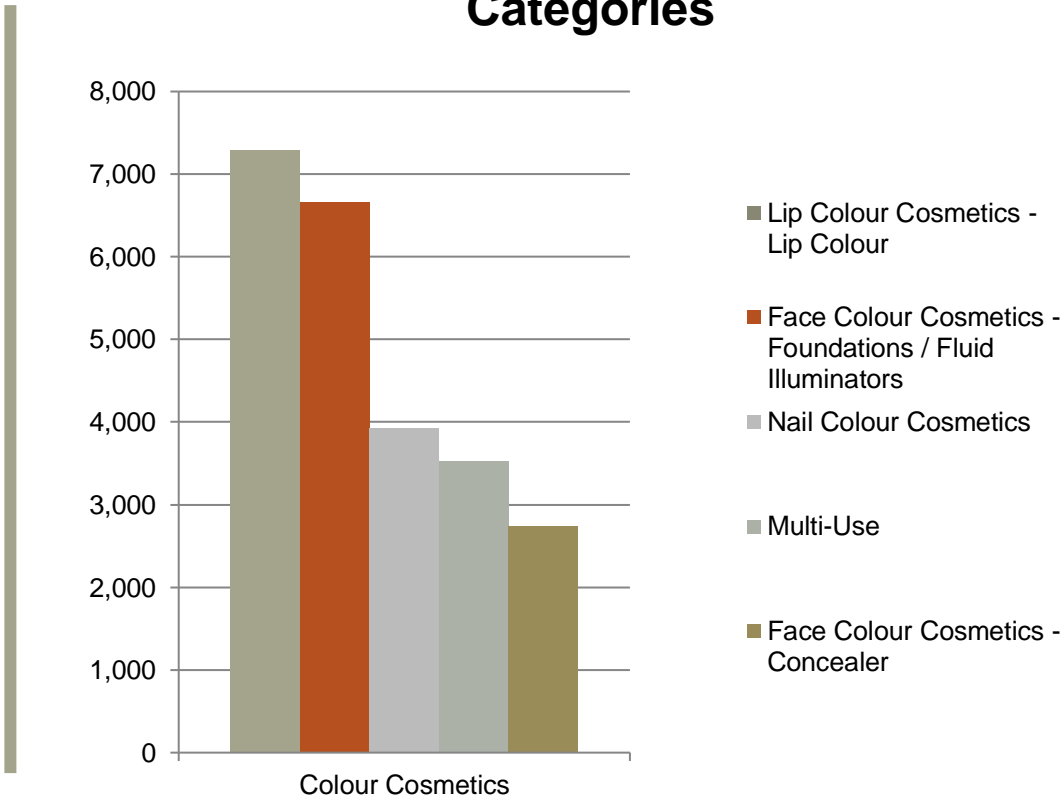


Innovating for the Vegan Beauty Consumer

Most Popular Categories 2017-2020

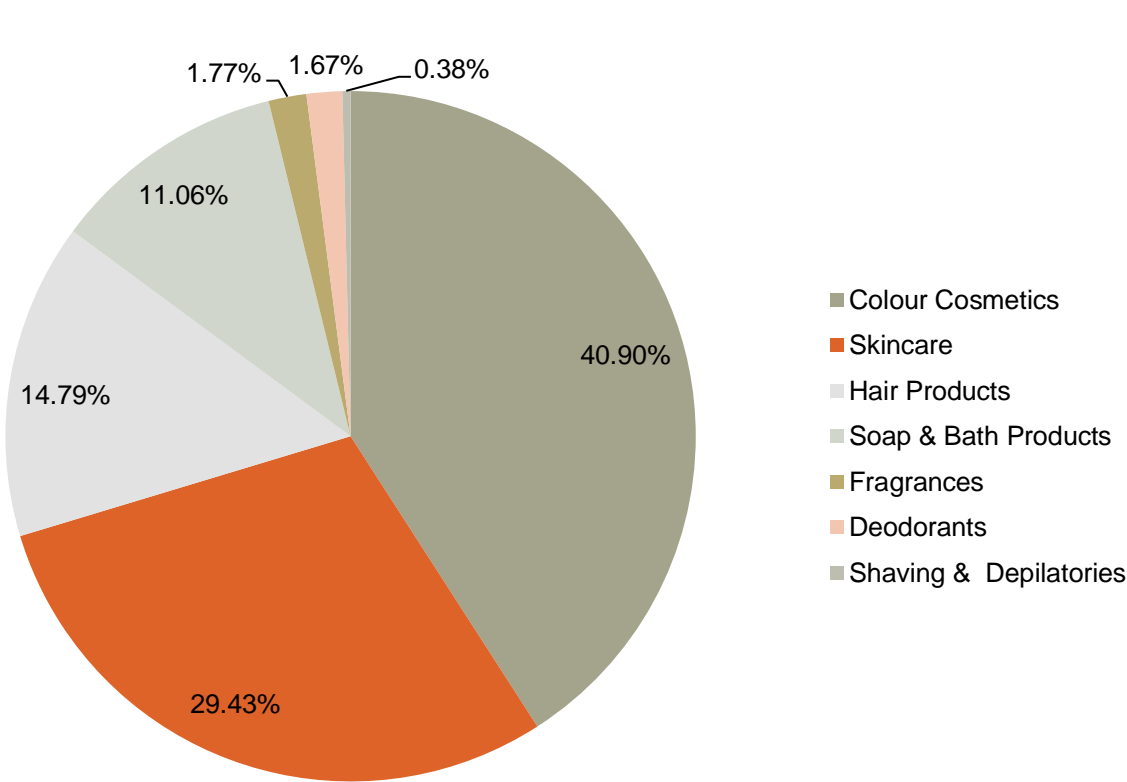


Top 5 Colour Cosmetics Categories

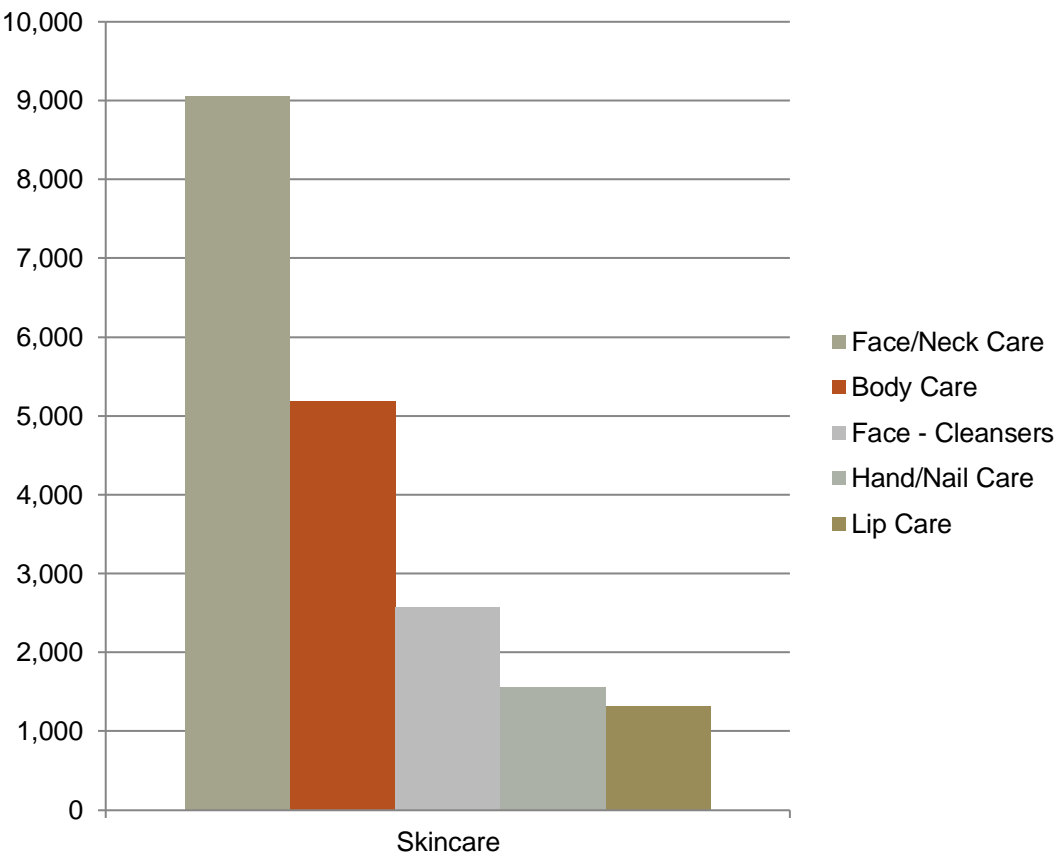


Innovating for the Vegan Beauty Consumer

Most Popular Categories 2017-2020

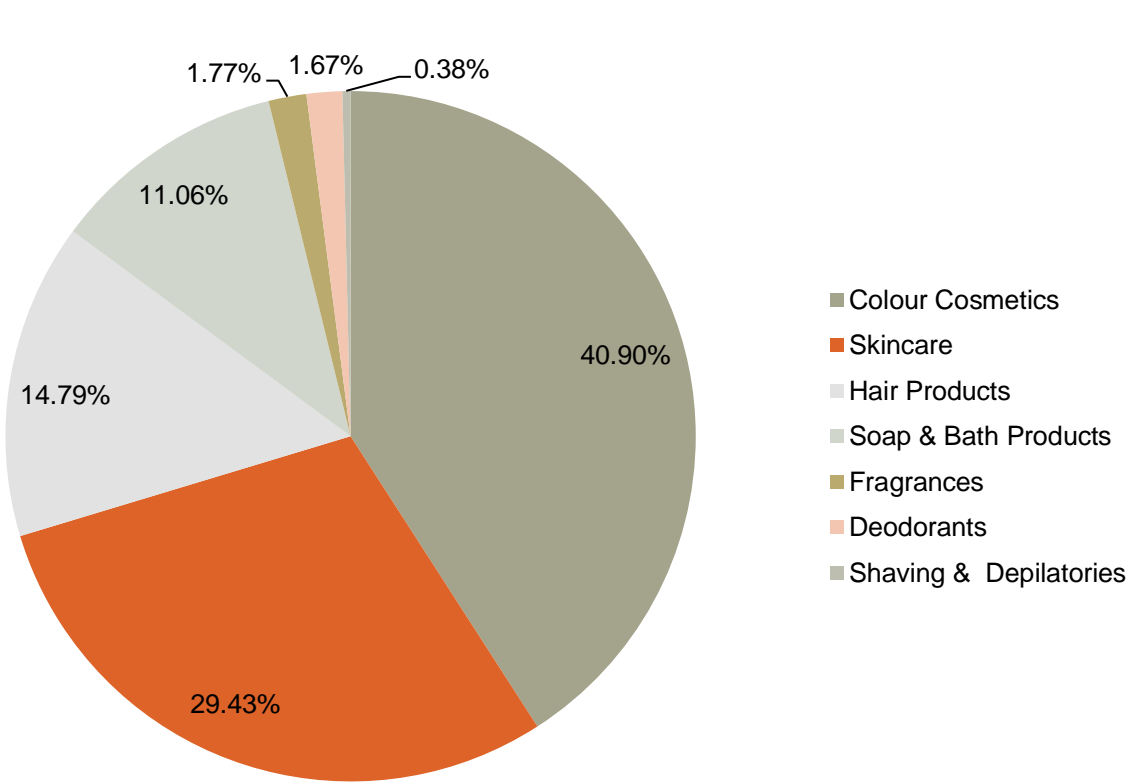


Top 5 Skincare Categories

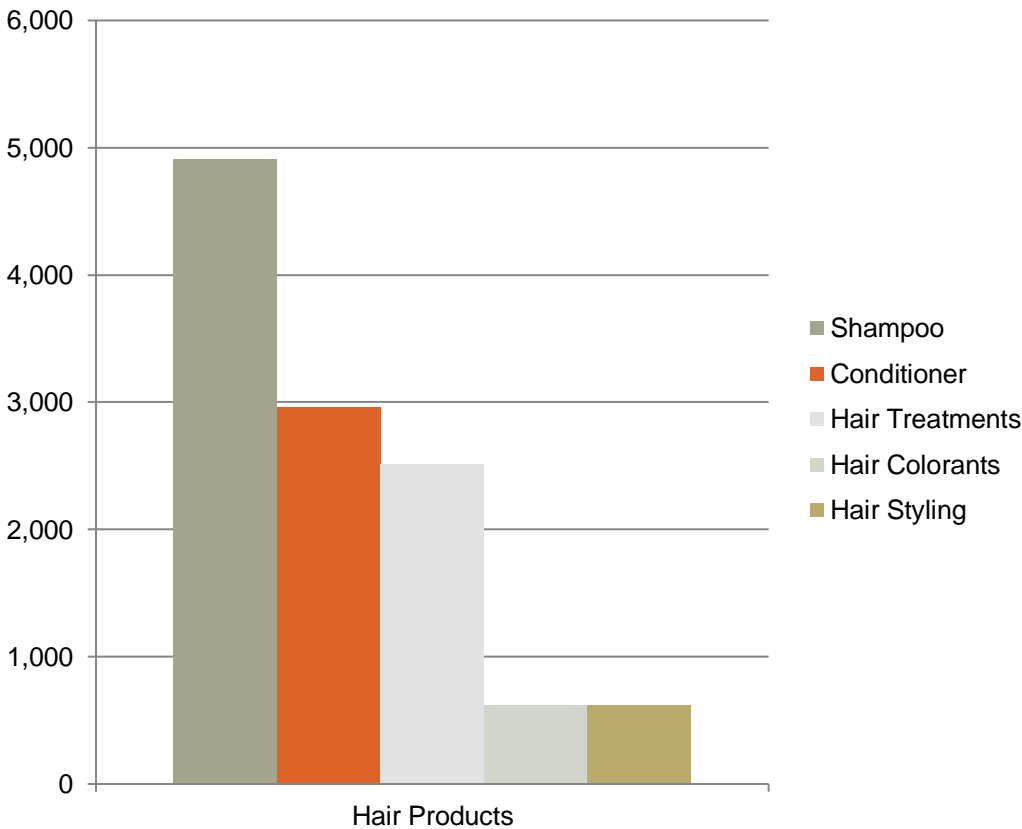


Innovating for the Vegan Beauty Consumer

Most Popular Categories 2017-2020

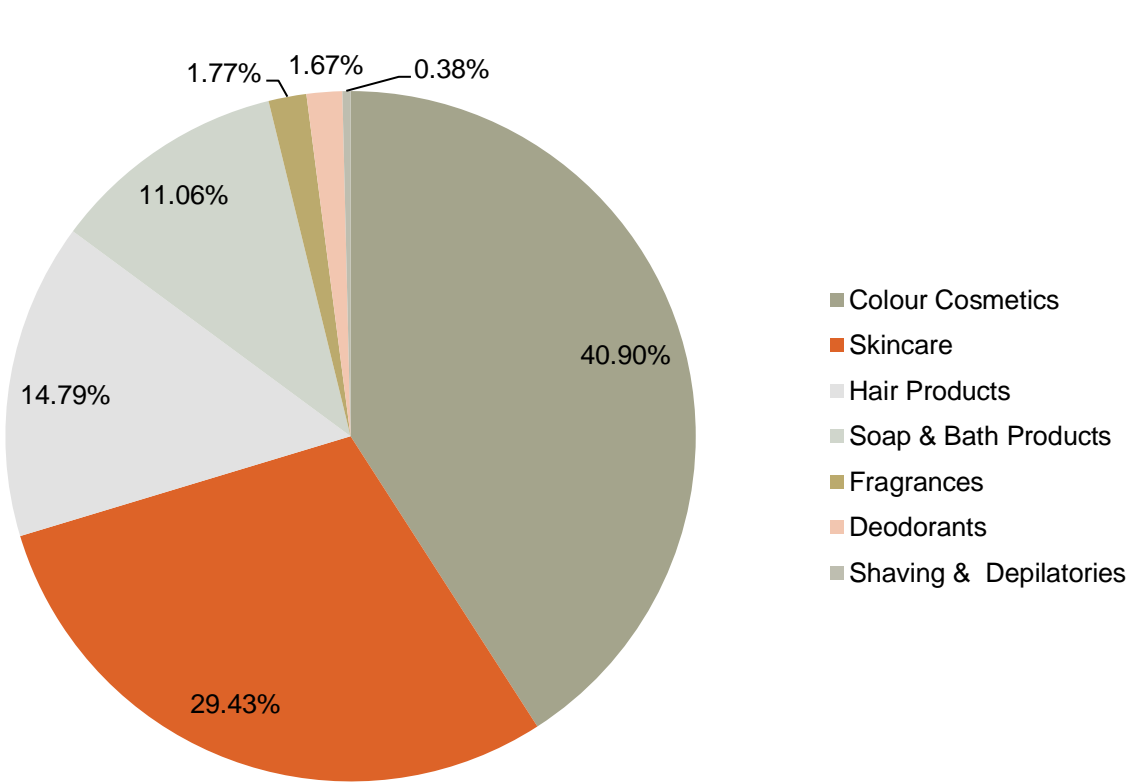


Top 5 Hair Products Categories

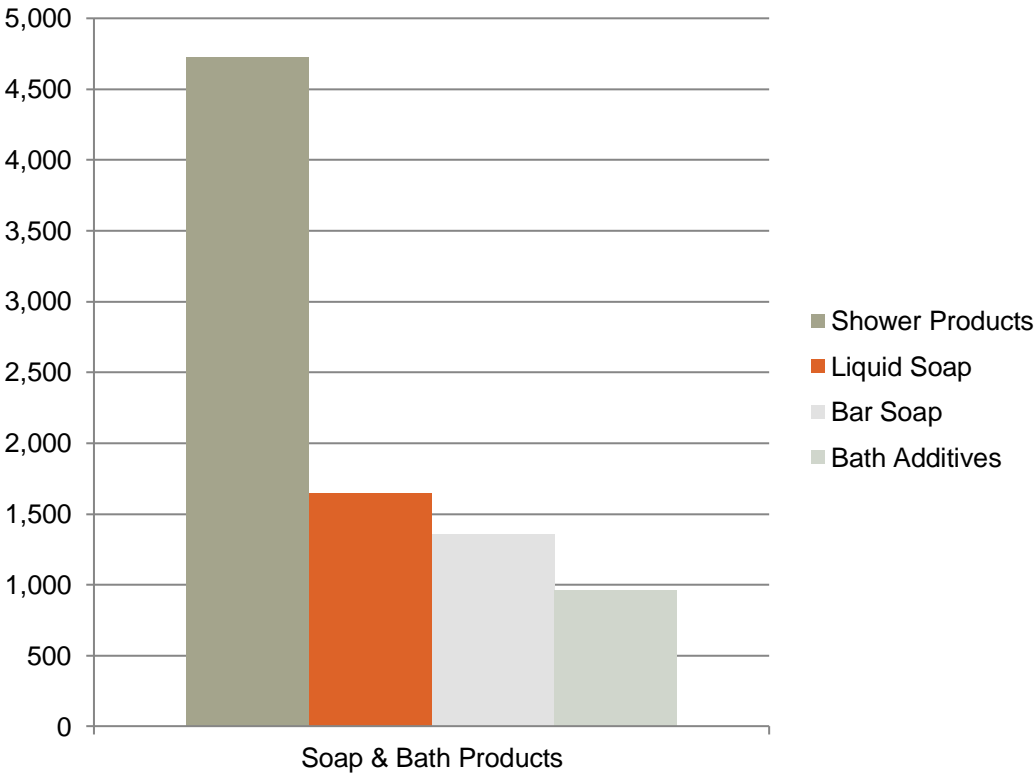


Innovating for the Vegan Beauty Consumer

Most Popular Categories 2017-2020



Top 4 Soap & Bath Products Categories



Vegan Beauty Today



KVD Vegan
Beauty Shake
Vegan
Eyeshadow
Primer

- 60% of US women are interested in trying universally wearable makeup
- This Transformative Texture concept taps into consumer desire for an experience that excites the senses



Nails Inc
73% Plant
Power Longwear
21 Free Vegan
Polish

- 53% of US female nail polish users ages 18-24 are interested in all-natural nail polishes
- This vegan formulation allows for a halal-friendly claim responding to 34% of UK customers 16-24 who consider a brand to be diverse when it caters to inclusivity

Vegan Beauty Today



Pacifica
Vegan Collagen
Complex Serum

- Using a vegan suitable alternative to an animal-based ingredient for skin care
- In the US, 34% of 18-24 year old consumers who use skincare products look for cruelty-free skincare options



Aba Cosméticos
Vegan Multi-
Purpose Hair
Mask

- Vegan beauty products align with conscious consumers who are seeking brands claiming to be respectful to nature and animals
- Multi-functional claims satisfy convenient-focused innovation for consumers looking to simplify hair routines

Introducing Our Vegan Suitable Ingredients



**Choosing
Compassionate
Beauty**



Defining “Vegan Suitable” at Croda

- 1) No animal product origin
- 2) No animal or animal-derived materials; processing aids and/or enzymes from dairy / animal sources; or cultures from animal products in its manufacture.
- 3) No animal-derived genetically modified organisms or enzymes.



Choosing Compassionate Beauty



Vegan Suitable

Alternatives

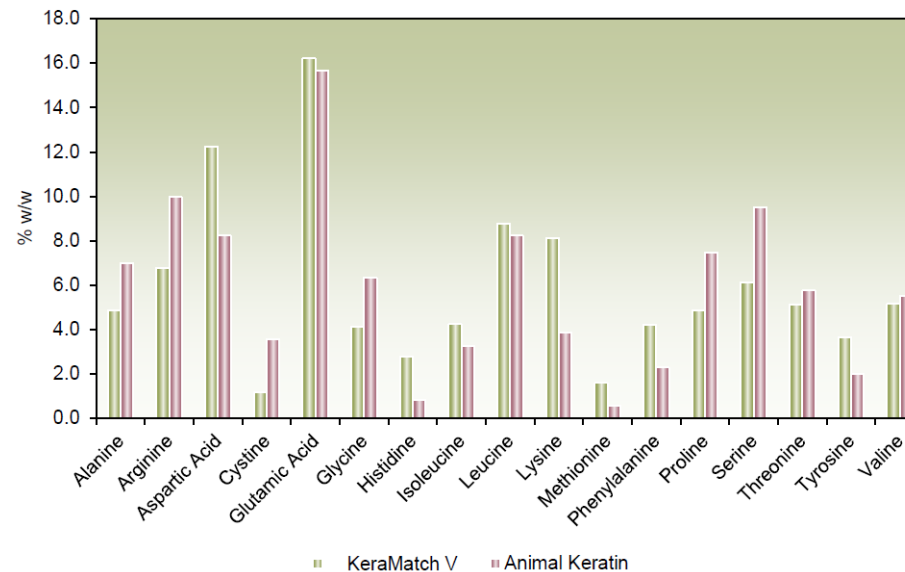
KeraMatch™ V



Smart science to improve lives™

In Touch with Nature

- Alternative to animal-derived keratin
- 17-22% active
- Recommended usage: 1-5%
- Improves tensile strength of damaged hair



CRODA

SP Supermol™ B MBAL



A Conscious Beauty Alternative



- Alternative to traditional lanolin
- 92% USDA certified biobased content
- Neutral odour and desirable off-white colour
- Low melt point allows for energy efficient formulating



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SP Syncrowax™ SB1 MBAL



Be Bold, Be Bright, Be You

- Alternative to beeswax
- Provides stable, uniform properties in sticks and emulsion systems
- RSPO certified
- REACH certified
- IECIC listed
- Broad versatility across applications



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Biopolymers

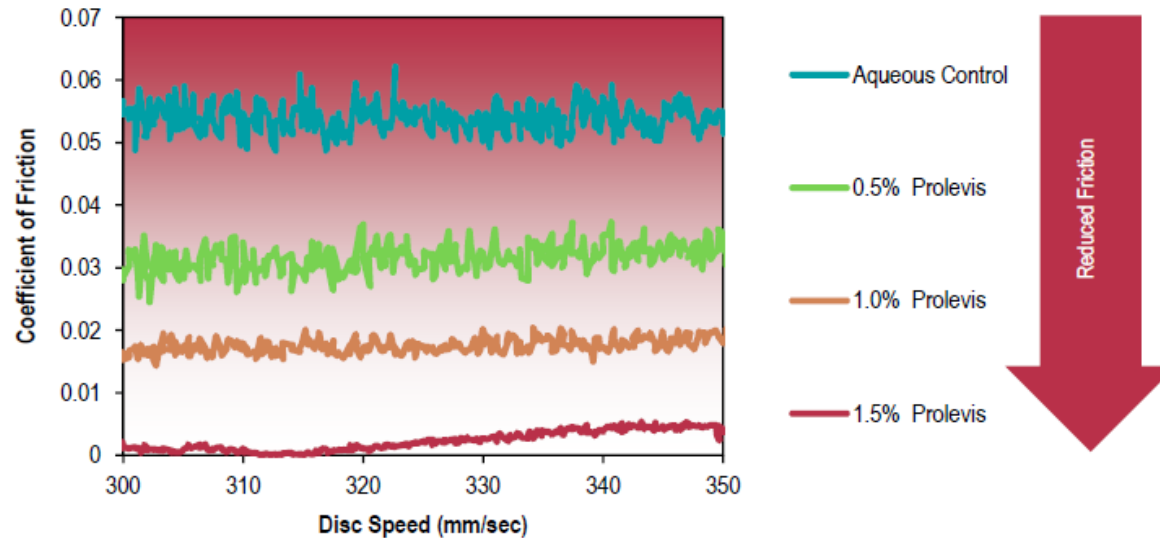
Prolevis™



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Instant Skin Smoothing

- Consumer perceivable skin smoothing, firming and tightening
- Proven surface-smoothing effects
- Exceptional film forming properties
- Vegetable derived biopolymer



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MiruStyle™ MFP PE



Smart science to improve lives™

The Smoothing Secret

- Significantly reduces frizz
- Excellent style retention
- Significantly reduces static flyaways
- Holds without dulling the hair
- Suitable for clear gel systems
- 90% naturally derived content



Water

Basic Spritz

MiruStyle MFP PE



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Voluminis™



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Turn Up the Volume!

- Hair voluminising active
- Hair looks and feels fuller
- Effective from rinse-off conditioners
- Lasting results
- Salon tested
- No build-up and no frizz



Voluminis

Basic
Conditioner

Hydrolysed
Parent
Protein

Methoxy PEG/PPG-
7/3 Aminopropyl
Dimethicone



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Choosing Compassionate Beauty



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Conditioning Agents

DuraQuench™ IQ SA



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Intelligent Hydration

Leave-on Features/Benefits

- Up to 72 hours long-lasting hydration
- Temperature and humidity responsive
- Visible improvement in skin dryness
- Delivers superior moisturisation via dual action technology

Wash-off Features/Benefits

- Physical reduction in skin drying in body and hand washes
- Proven skin and scalp moisturisation benefits
- Delivers additional hair conditioning attributes
- Consumer-perceivable benefits for both skin and hair



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DuraQuench™ IQ SA

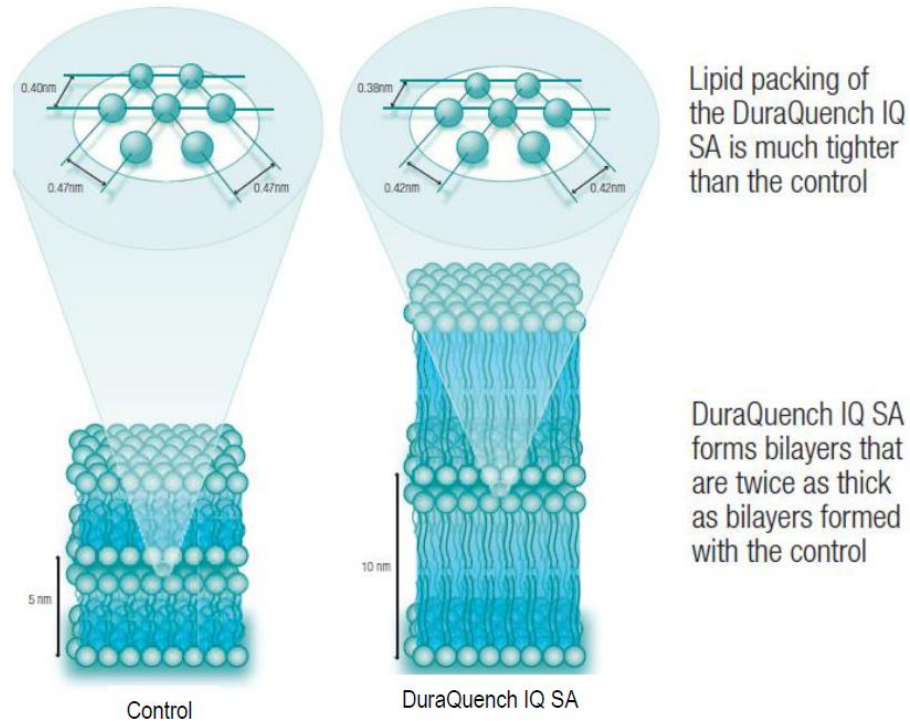


Figure 4: DuraQuench IQ SA forms a structured lipid bilayer that is twice as thick as the control, and the lipid head groups are more tightly packed, ultimately leading to long lasting moisturisation

DuraQuench™ IQ SA



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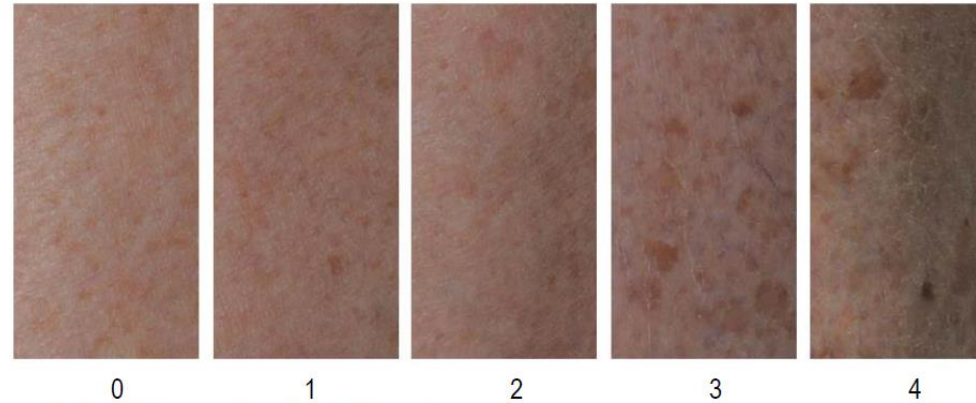


Figure 5: Dry skin of increasing severity from 0-4 on a clinical expert scale

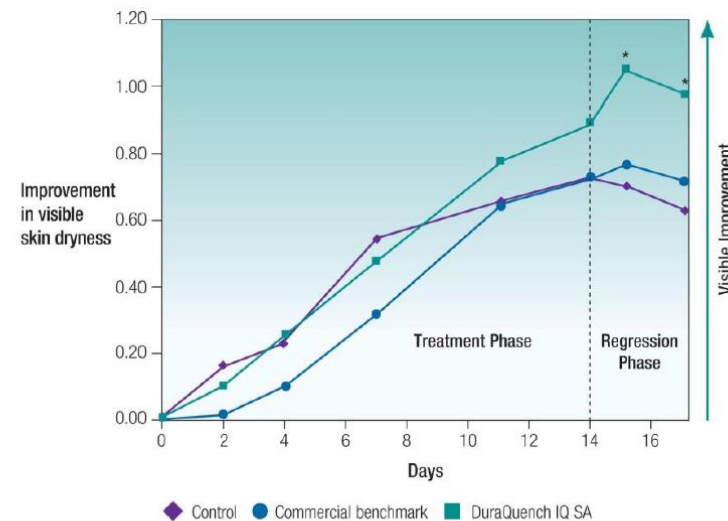


Figure 6: Significant improvement in visual dryness seen with the DuraQuench IQ SA formulation versus the control in the regression phase on days 15 and 17 (day 15 ($p<0.05$); day 17 ($p<0.05$)).



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Incroquat™ Behenyl TMS-50

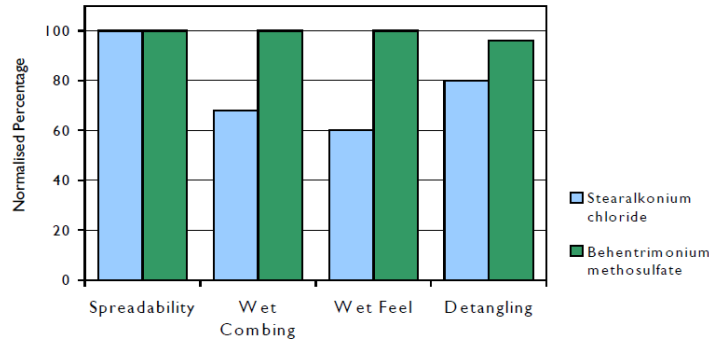


Figure 2: Behenyl quats are known for their outstanding detangling and wet combing properties, as evidenced by salon trial results

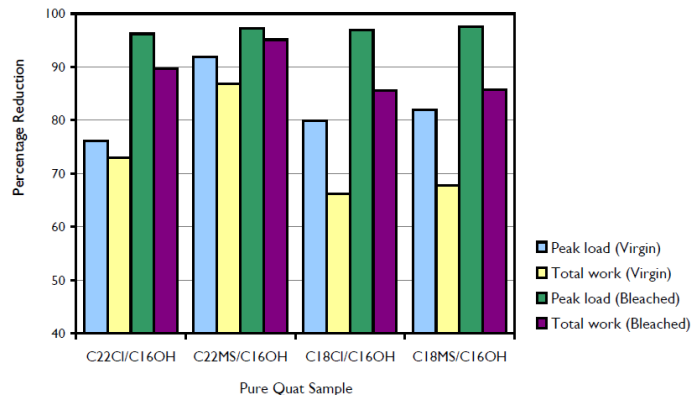


Figure 3: Behenyl methosulfate quats are more hydrophobic in nature, resulting in better deposition and hence superior performance without build-up. Here the reduction in combing forces on both virgin and bleached hair compared with behenyl chloride, stearyl chloride and stearyl methosulfate quats can be seen (1.5% quat, 4.5% alcohol in water).

Just the Right Touch

- High activity quat (~50%)
- Provides excellent detangling/wet combing
- Substantive to hair and skin
- Soft, powdery skin feel
- Ideal for leave-on skin care
- Exceptionally mild, non-irritating
- Forms elegant cationic emulsions
- Adjustable conditioning
- Emulsifies silicones into smooth skin care applications



SP Rejuvasoft™ MBAL



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Conditioning without Compromise

- Created a standalone conditioning chassis with minimal ingredients
- Exceptional softness
- Excellent conditioning and detangling
- Product performance parity with leading conditioner brands
- Silicone-free
- Label sulphate-free
- Contains 99% USDA certified biobased content

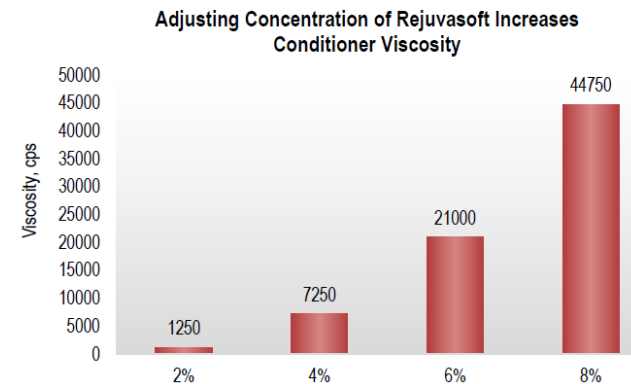
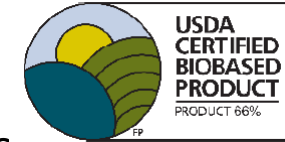


Figure 1: Increasing the amount of Rejuvasoft in the formulation increases the viscosity allowing for maximum flexibility in creating different conditioning systems.



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SensaLuxe™ DF



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Dry State Conditioning

- Surface smoothing properties for exceptional conditioning
- Luxuriously smooth and soft hair in the dry state
- Touchably smooth and soft hair
- Consumer-perceivable improvements in the sensory feel of damaged hair
- Improves dry combing and manageability

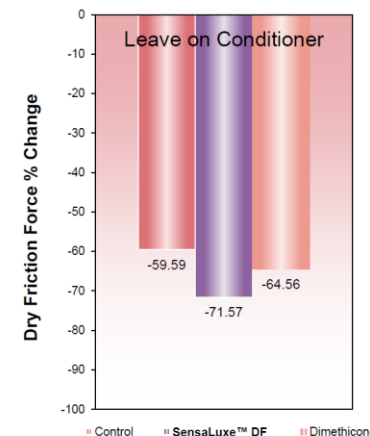


Figure 3: Graph showing the change in dry surface friction of hair tresses after treatment with either the control conditioner or the same conditioner containing either 1% SensaLuxe DF or 1% Dimethicone

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SensaLuxe™ DF



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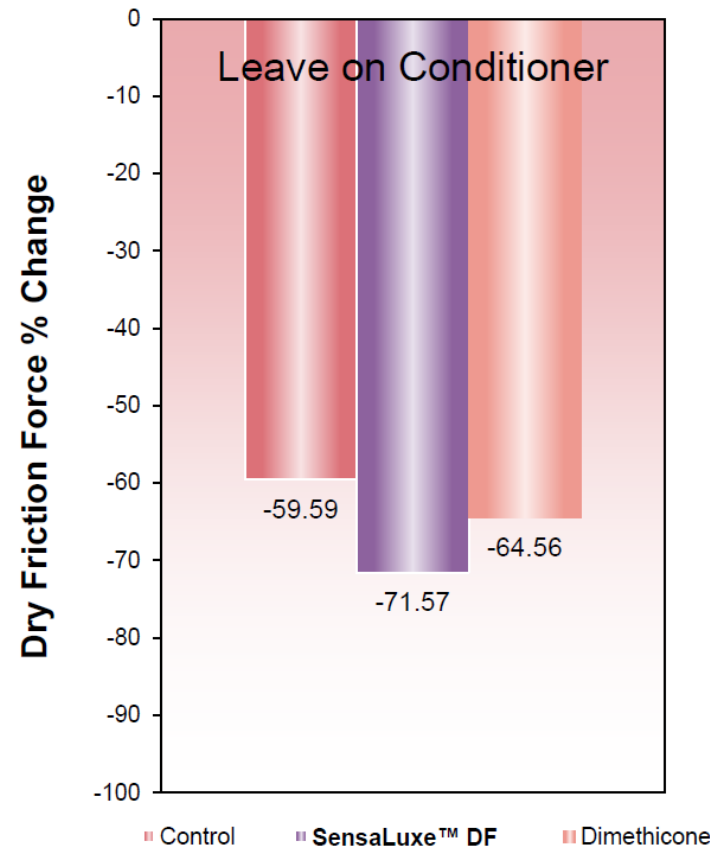


Figure 3: Graph showing the change in dry surface friction of hair tresses after treatment with either the control conditioner or the same conditioner containing either 1% SensaLuxe DF or 1% Dimethicone



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SensaLuxe™ DF



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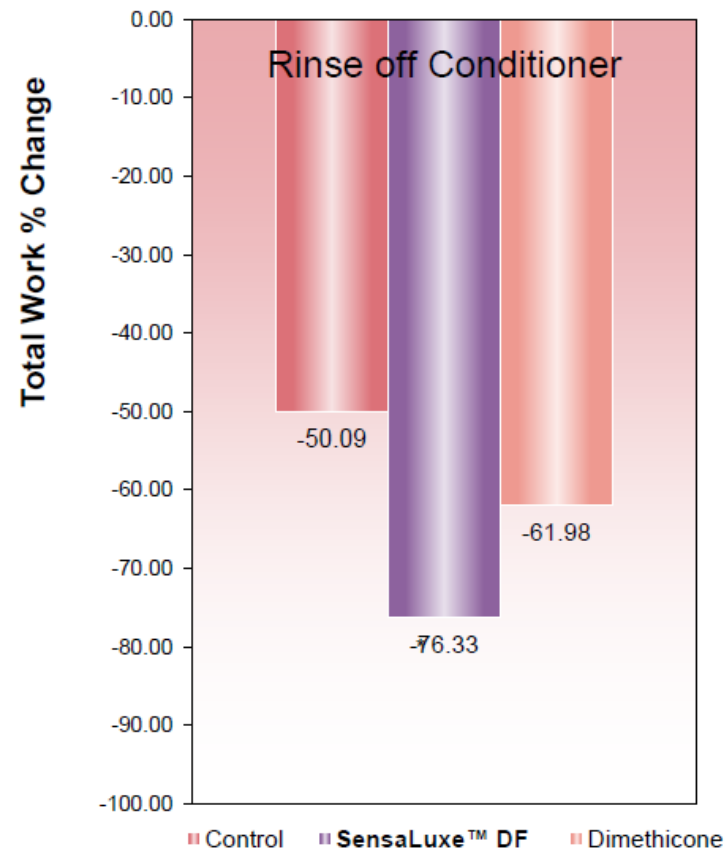


Figure 7: Graph showing the change in total work required to comb a hair tress after treatment with the control, the formulation containing SensaLuxe DF or the benchmark formulation containing Dimethicone. Sensaluxe DF is statistically significant compared to control (n=5, *p<0.05)



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SensaLuxe™ DF



Oil Moisturiser – Relaxed African Hair

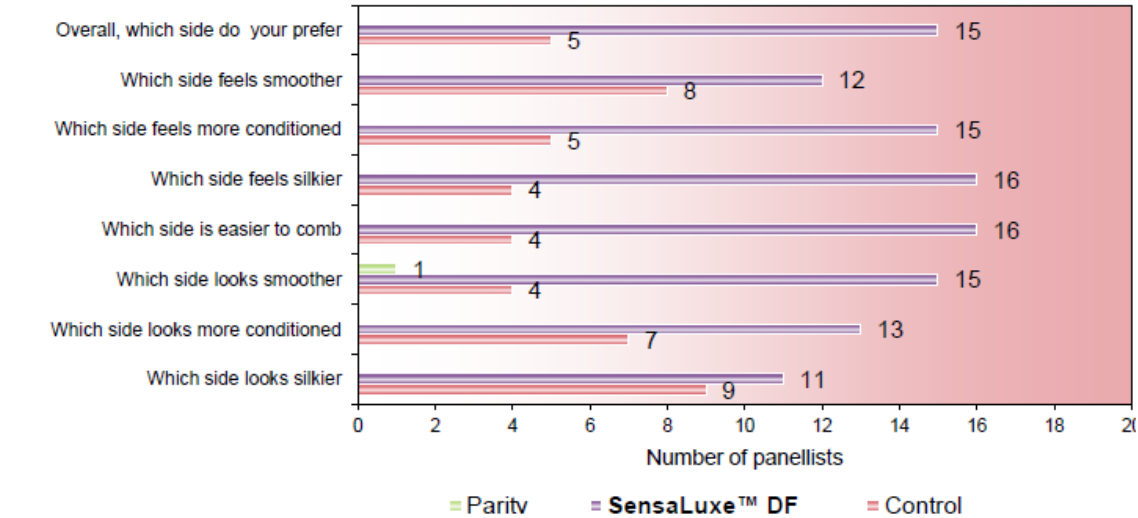


Figure 11: Results table showing the preference of the untrained panellists for the control conditioner compared to the Hydrating Oil Hair Moisturiser containing SensaLuxe DF

Choosing Compassionate Beauty



Vegan Suitable

Effect Pigments

Moonshine™ Effect Pigments



Out of this World

- Brilliant colour transmission and colour intensity
- Wide range of colours and effects available
- Novel 350nm borosilicate substrate thickness represented in the Astral effect series, delivering:
 - Smooth, sensory benefits
 - Superior suspension properties
- Multiple colour effect options, including:
 - Interference
 - Single colour
 - Multi-colour shifting
 - Metallic



Moonshine™ Effect Pigments



Moonshine™ Astral™ Effect Series

- Twelve interference effect pigments
- Six interference colours
- Novel 350nm borosilicate substrate thickness
- White bulk tone with colour interference effect
- Deliver exceptionally silky skin feel
- Provides superior suspension properties which enhance stability

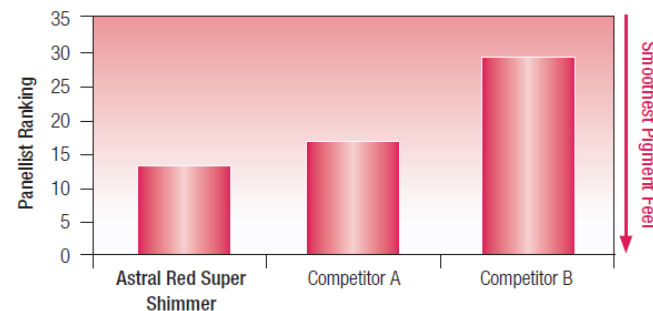
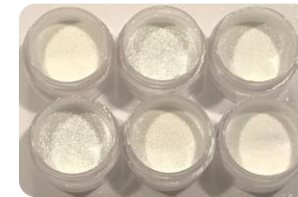
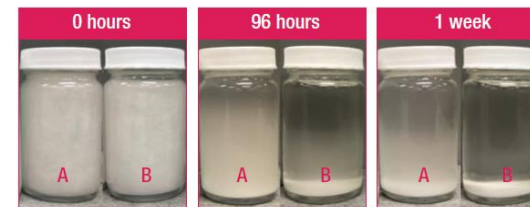


Figure 1: Panellists ranked Astral Red Super Shimmer as the smoothest/nicest feeling pigment



A - Astral Red Super Shimmer B - Competitor A

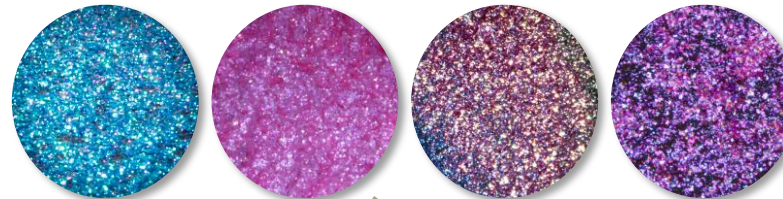
Figure 2: Astral Red Super Shimmer retained superior suspension after 96-hr and 1-week time periods in a non-Newtonian fluid, compared to Competitor A

Moonshine™ Effect Pigments



Moonshine™ Ultra Colour Travel Series

- Four multi-colour shifting effect pigments
- Four colour combinations
 - Each colour is available in one particle size – Ultra Sparkle
 - Colour bulk tone: Red, Blue, or Pink
 - Multiple colours appear upon light reflection at a different angle
- Substrate thickness = 1.2µm



CARMINE
FREE!



Moonshine™ Effect Pigments



Moonshine™ Colour Travel Series

- Twelve multi-colour shifting pigments
- Four different colour combinations
- Three particle sizes: shimmer, sparkle, and ultra sparkle
- White bulk tone with multiple colours as light hits the pigment at different angles



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Choosing Compassionate Beauty



Vegan Suitable

Emollients

Crodamol™ STS



Superior to Silicone

- High refractive index
- Film-forming
- Easily emulsified
- Silicone-like feel and functionality
- Good binder for pressed powders
- Foam stabiliser



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Arlasense™ V5



Sensational Skin Feel

- Extreme pH tolerance
- Excellent skin spreading
- Pigment wetting
- Reduces tackiness
- Compatible with organic & inorganic UV filters
- Contains 66% USDA certified biobased content
- 65% derived natural according to ISO 16128
- Sensory similar to that of cyclomethicone



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Cromollient™ SCE

Sensitive Conditioning Emollient



- Exceptionally mild
- Mitigates surfactant irritation
- Water dispersible
- Surfactant soluble
- Provides a moisturised and soft skin after-feel
- Enhances slip and detangling
- Suitable for clear systems
- Improves wet combing
- Solubilises sunscreens
- IECIC, EINECS, DSL and NICNAS approved



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Crodabond™ CSA



Miracle Cuticle Smoothing

- Seals damaged cuticles
- Repairs split ends
- Smooths hair fibres
- Enhances shine
- Delivers long-lasting, consumer perceivable repair
- Reduces color fade
- Prevents future hair damage
- Provides long-wear for colour cosmetics
- Provides a natural alternative to petro-based ingredients



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Crodabond™ CSA

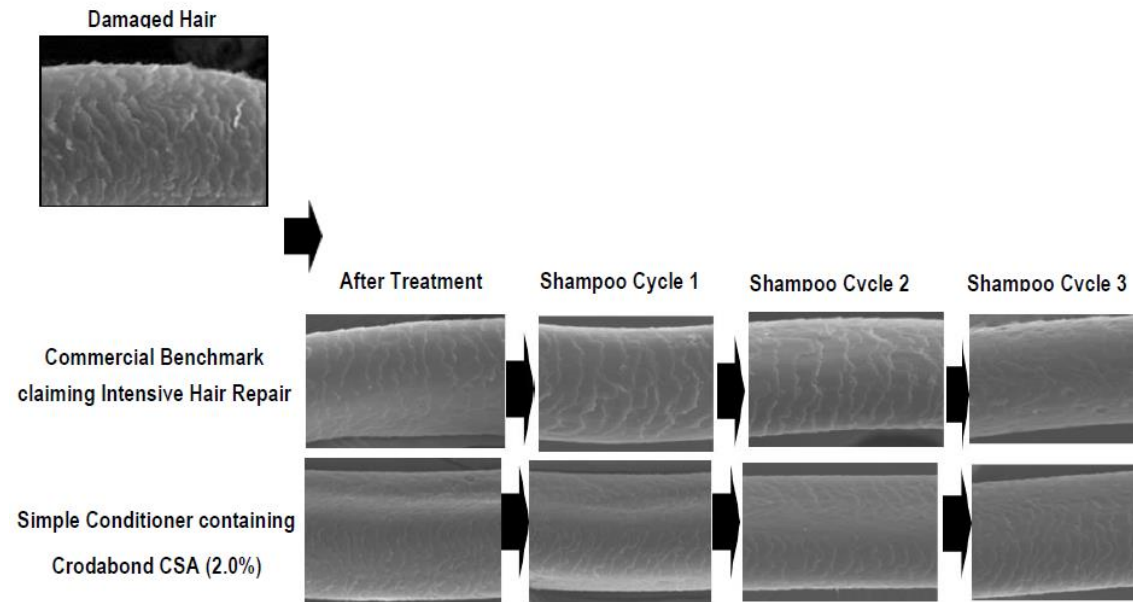


Figure 4: Crodabond CSA can effectively seal down hair cuticles in comparison to a leading commercial conditioner designed for intensive hair repair

Crodabond™ CSA

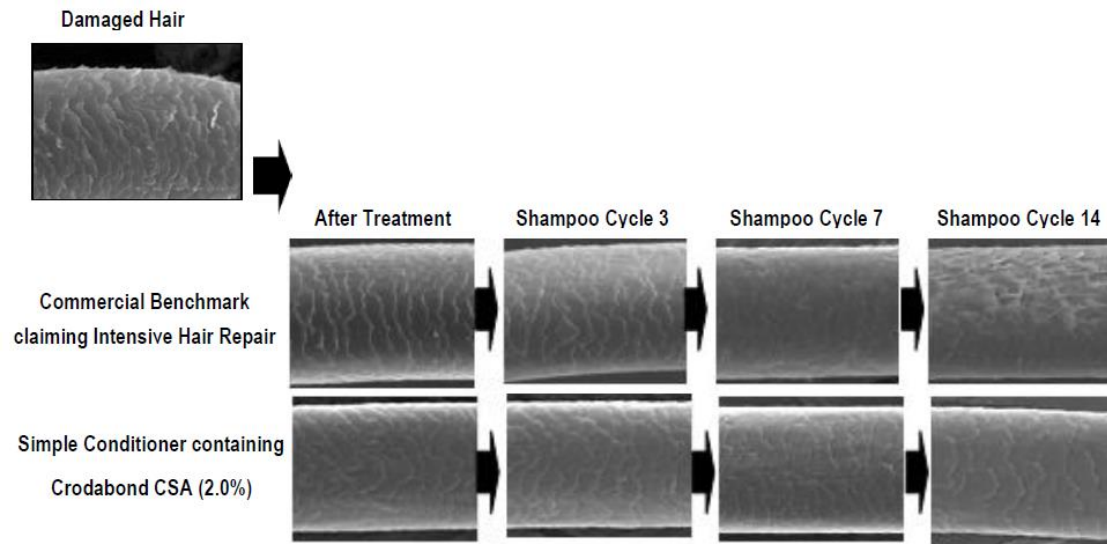


Figure 5: Crodabond CSA can effectively seal down hair cuticles for longer in comparison to a leading commercial conditioner designed for intensive hair repair

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Choosing Compassionate Beauty



Vegan Suitable

Emulsifiers

Cithrol™ PGTL



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Discover Effortless Performance

- High performance W/O emulsifier
- Effective at low use level
- Create a variety of formulation sensories
- 100% bio-based
- Excellent emulsion stability with no requirement for co-emulsifiers

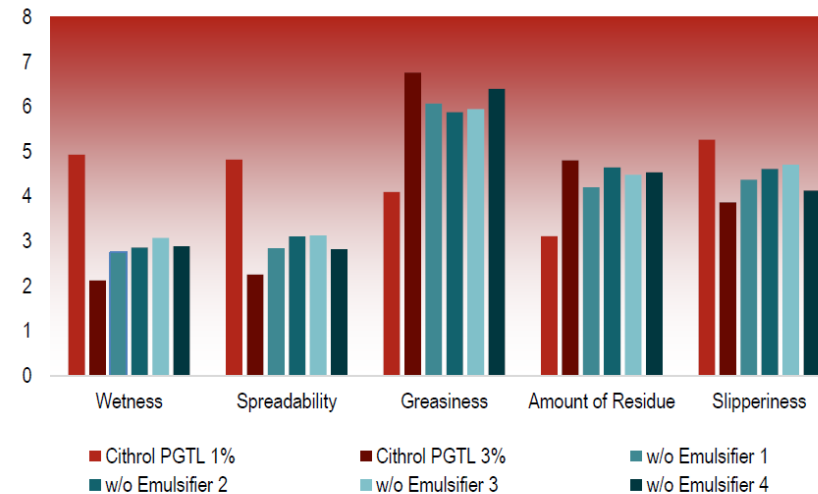


Figure 15: A bar chart to show the sensory results from an untrained panel for a simple formulation



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NatraGem™ E145 NP



Performance By Nature

- High HLB O/W emulsifier
- Hot and cold processable
- Ultimately biodegradable
- Electrolyte, pH and temperature tolerant
- Creates emulsions of varying viscosities
- Can be used with high and low polarity oils



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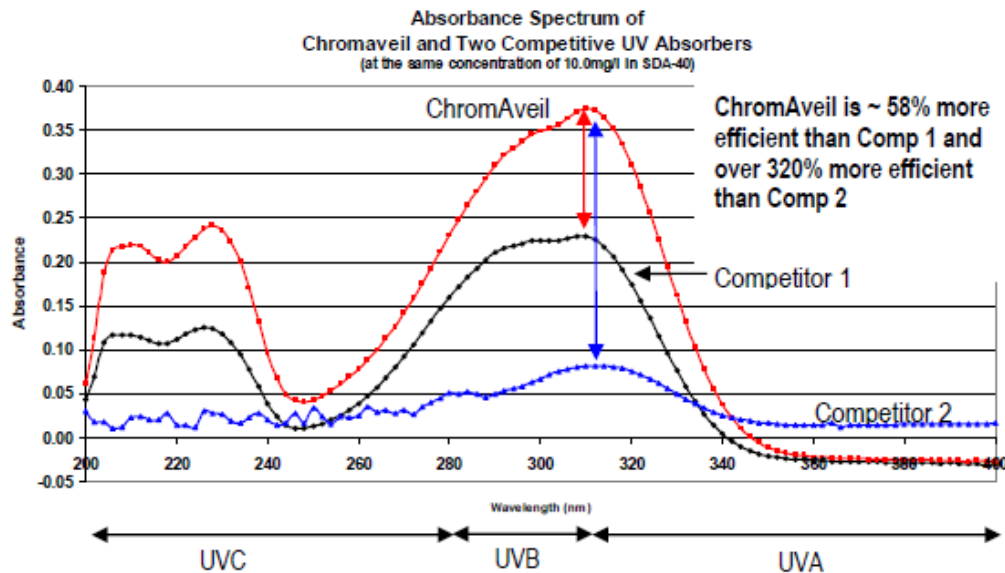
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Quats

ChromAveil®



ProtecTress of Colour

- Protects hair fiber integrity from damage inflicted by sun damage
- Excellent substantivity to hair
- Non-silicone based
- Salon panel evaluation demonstrated consumer perceivable differences between tresses with and without treatment



Crodazosoft™ DBQ

Softness Plus

- Proven softening effects
- Superior slip and wet combing
- Prevents cuticle combing damage
- Protects artificial hair colour
- Promotes delivery of lipophilic actives

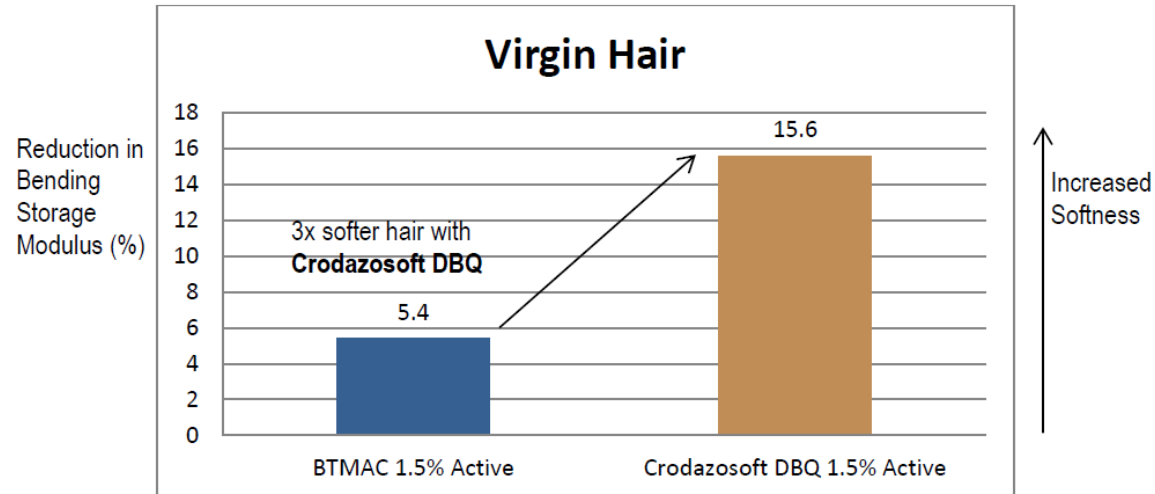


Figure 2: Bending Storage Modulus (Stiffness) Reduction of Virgin Hair Treated with either Crodazosoft DBQ or Behentrimonium Chloride

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Crodazoquat™ MCC



Multicultural Conditioner for Damaged Hair

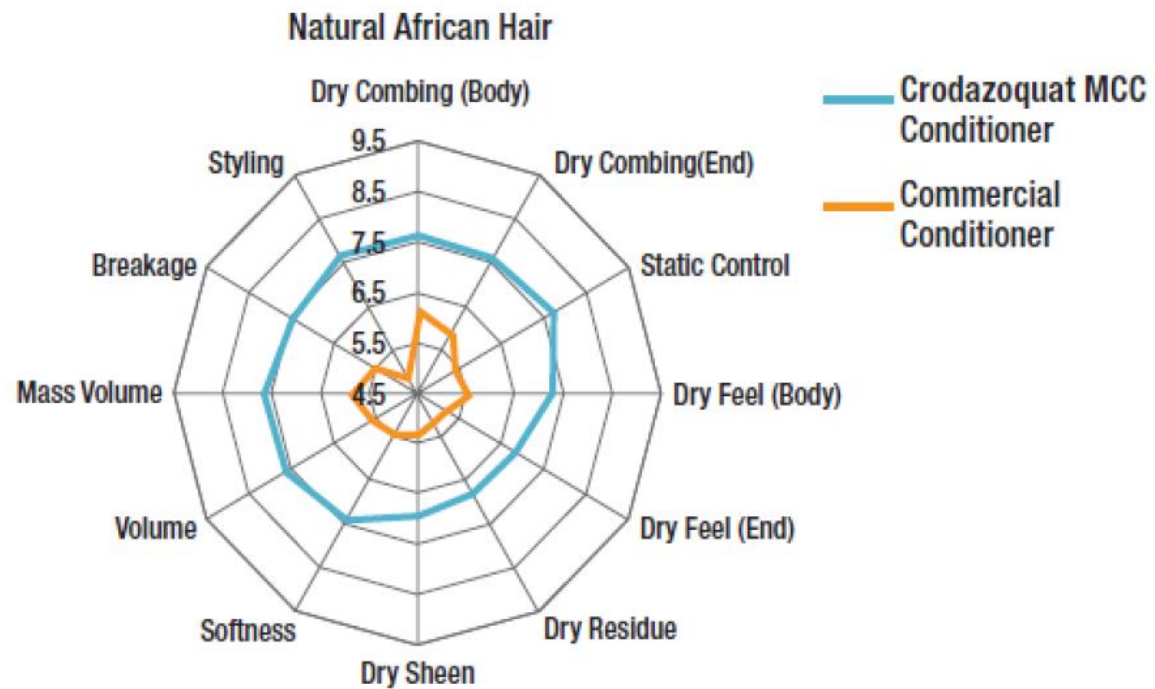
- Enables conditioning on various ethnic hair types
- Especially effective on damaged hair
- Restores hydrophobicity
- Enhances hair aesthetics
- Detangles and conditions



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Crodazoquat™ MCC



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Rheology Modifiers

Crothix™ Liquid

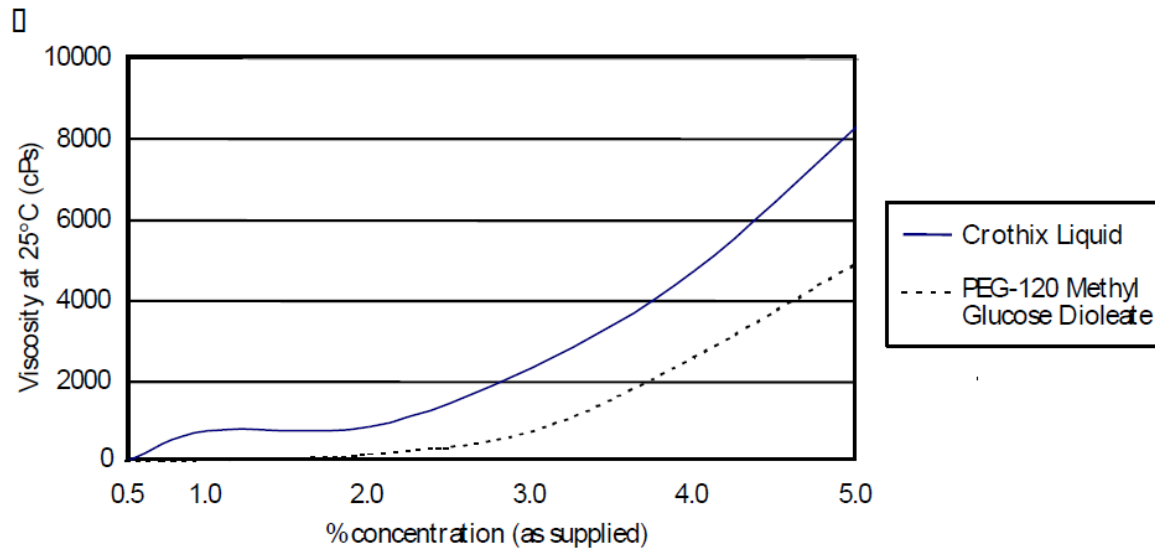


Figure 1: Comparative viscosity – Crothix Liquid vs PEG-120 Methyl Glucose Dioleate

High Performance Thickeners



- Nonionic liquid thickener
- Conditioned afterfeel on skin and hair
- Recommended for cold process systems
- Useful for difficult to thicken systems
- Lower energy input requirements
- Suitable for clear systems
- Requires no neutralization



OleoCraft™ LP-20



Protecting Perfection

- Forms solid sticks, gels or emulsions
- Create water- and wear-resistant polymer films
- Boosts SPF
- Imparts minimal sensorial impact on formulation
- Enhances gloss
- Improves pigment dispersions



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OleoCraft™ LP-20



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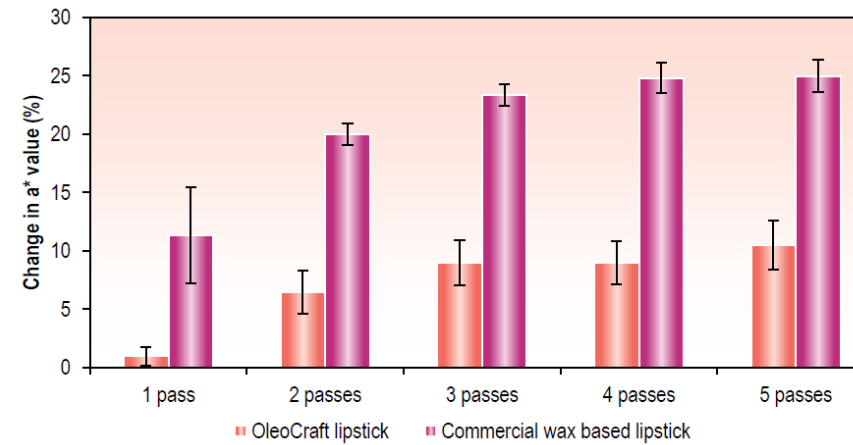


Figure 8: The percentage change of colour value a^* following repetitive passes of an abrasion scrub tester demonstrate that a lipstick formulation containing an OleoCraft polymer is more durable than a premium, commercially available wax-based lipstick



OleoCraft Lipstick



Commercial Lipstick



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Versathix™



Rheology Versatility

- Superior shear thinning behaviour
- Outstanding thickening efficiency, even in sulphate-free systems
- Neutral effect on foam and sensorial properties
- Excellent for clear systems
- Cold processable
- Stable at low pH
- Counter irritant



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Versathix™



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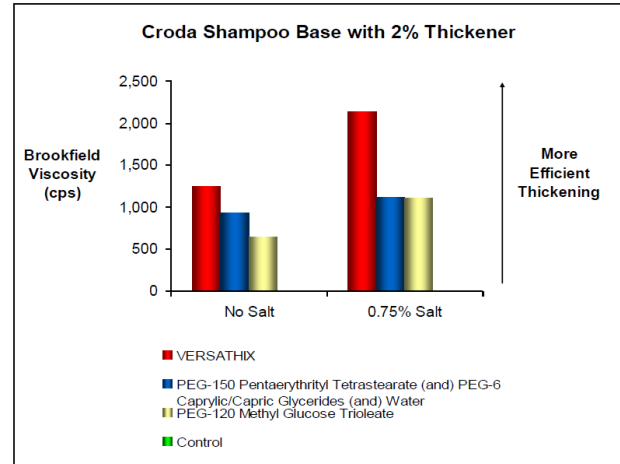


Figure 2: Salt Effects and Comparative Viscosity in Croda Shampoo Base – 2% Thickener

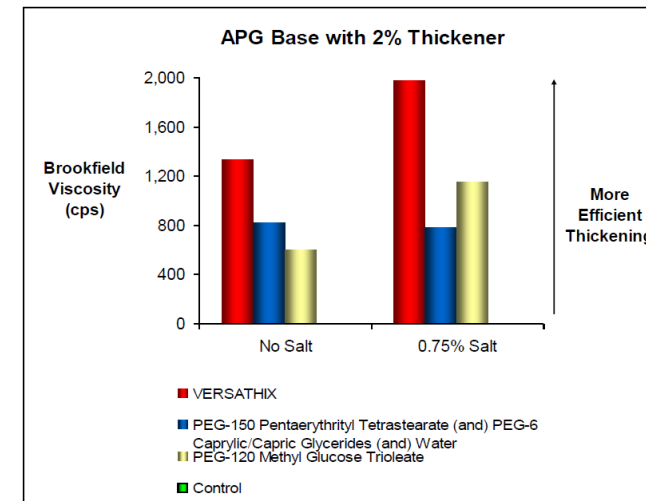


Figure 3: Salt Effects and Comparative Viscosity in APG Base, 2% thickener



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Versathix™



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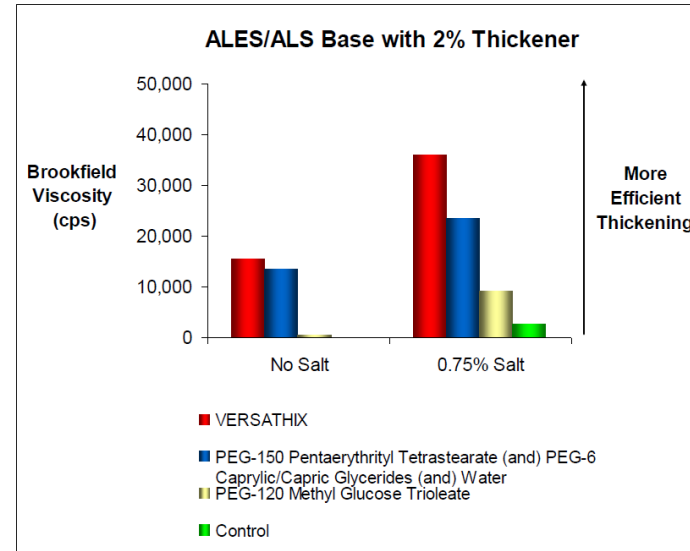


Figure 4: Salt Effects and Comparative Viscosity in ALES/ALS Base – 2% Thickener

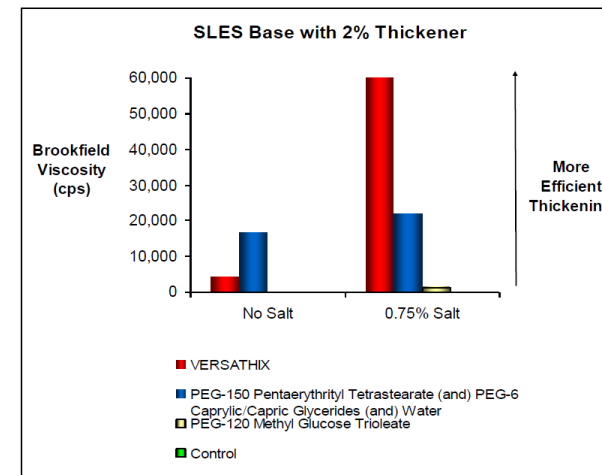


Figure 5: Salt Effects and Comparative Viscosity in SLES Base – 2% Thickener

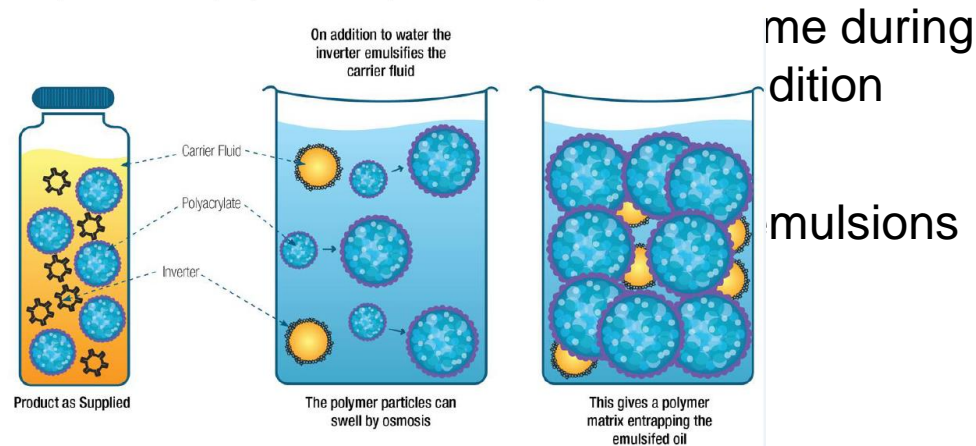


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ViscOptima™ LV

Controlled Fluidity

- Multifunctional liquid dispersion polymer that can emulsify up to 20% oils and silicones
- Instant and efficient thickening at low inclusion levels
- Stable, low viscosity emulsions



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ViscOptima™ LV



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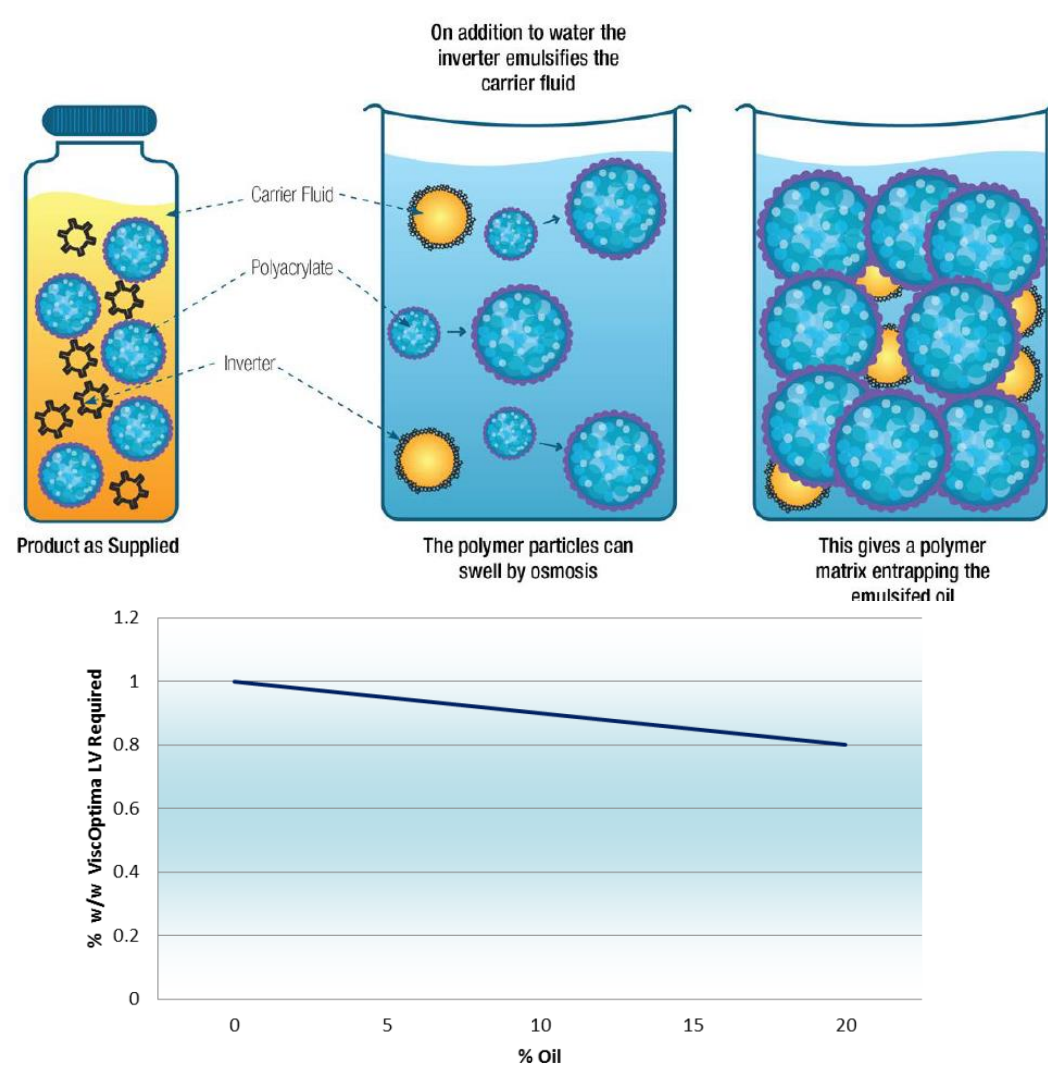


Figure 3: Emulsification ability of ViscOptima LV within a formulation



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Volarest™ FL



The Secret of Levitation

- Provides controlled, targeted delivery from sprayable emulsions
- Delivers the luxury of a cream in a spray format
- Delivers novel textures to the consumer with desirable sensory properties (light, non-tacky feel)
- Delivered curl retention performance in hair care products
- Boasts unique suspension and flow properties
- Effective at pH activation performance
- Easy-to-use, cold-processable liquid



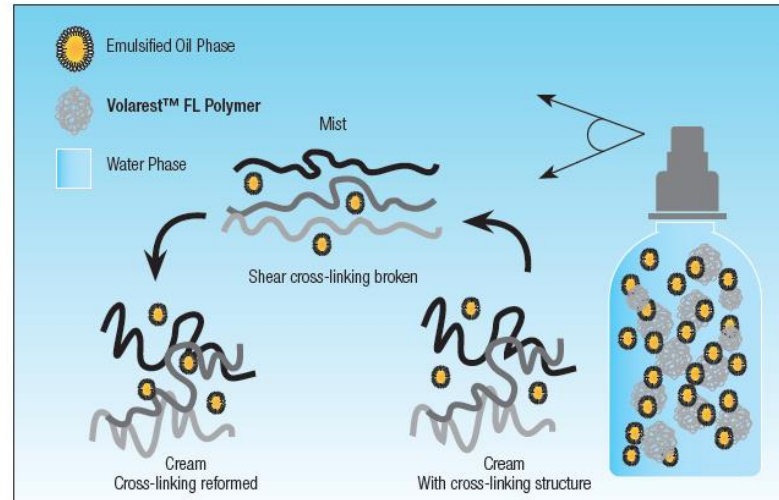
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Volarest™ FL



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Volarest FL Sun
Spray SPF 50

Commercial Sun
Spray SPF 15

Commercial Sun
Spray SPF 50

Figure 5: "Fly-Stay" Technology of Volarest FL against two commercial sunscreen sprays



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Choosing Compassionate Beauty



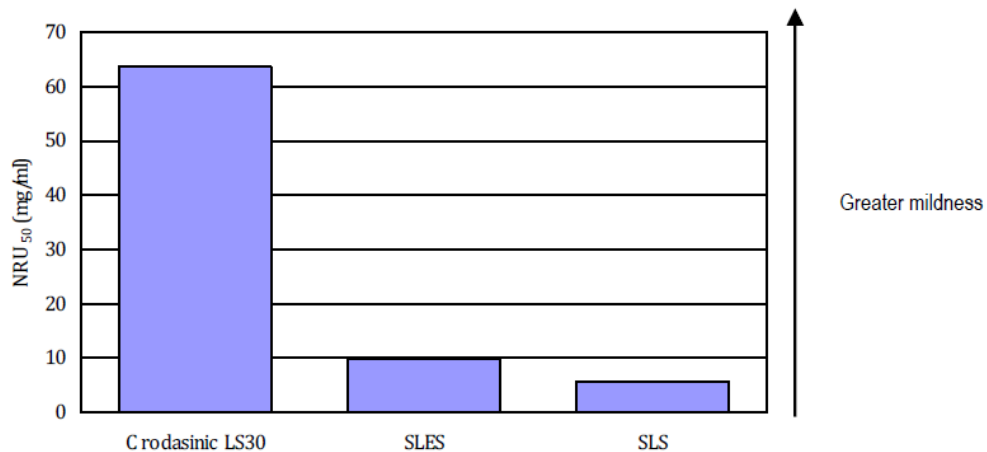
Vegan Suitable

Surfactants

Crodasinic™ LS30

Luxurious Lather

- Mild detergency
- Excellent foaming
- Substantially milder than SLES
- Compatible with other cationics
- Enzyme inhibitor in oral care
- Readily biodegradable



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Synperonic PE/F 87



Maximising Product Performance

- Increase the water solubility of hydrophobic oily substances and improve miscibility
- Excellent foaming capabilities
- Effective wetting agent
- Ability to create a thermoreversible gel



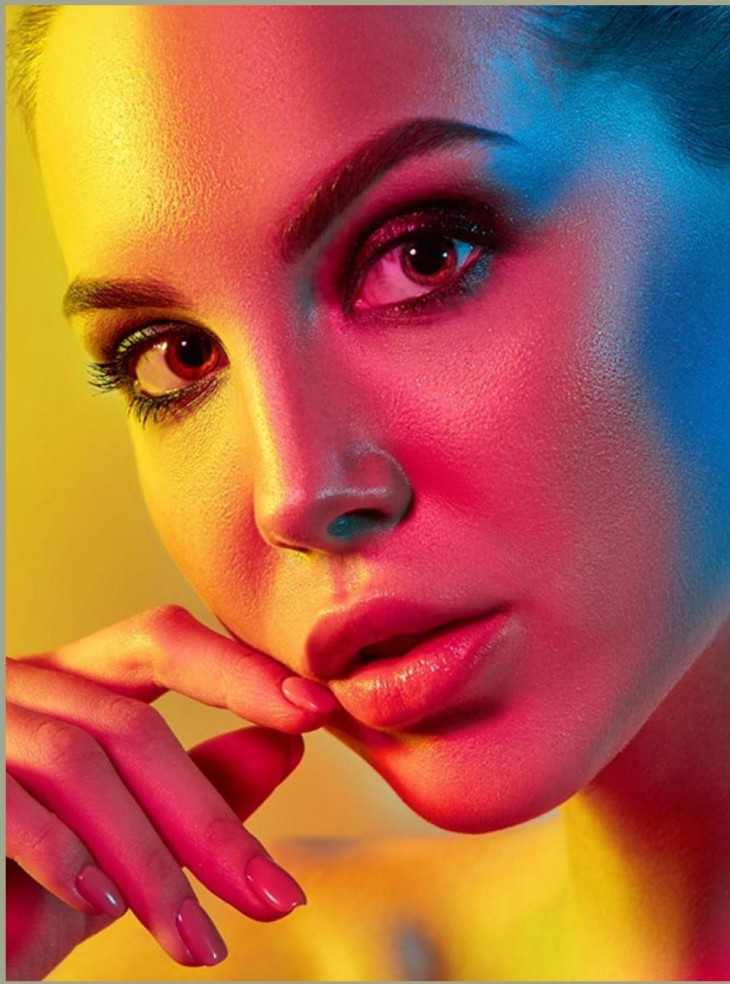
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Vegan Suitable

UV Filters

Infraveil™ IT-100



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Infrared Protection

- Instant protection from IR-ageing
- Easy-to-use, patented dispersions
- Choice of carrier fluids
- Independently validated IRA protection
- Minimal whitening on the skin
- COSMOS approved variant

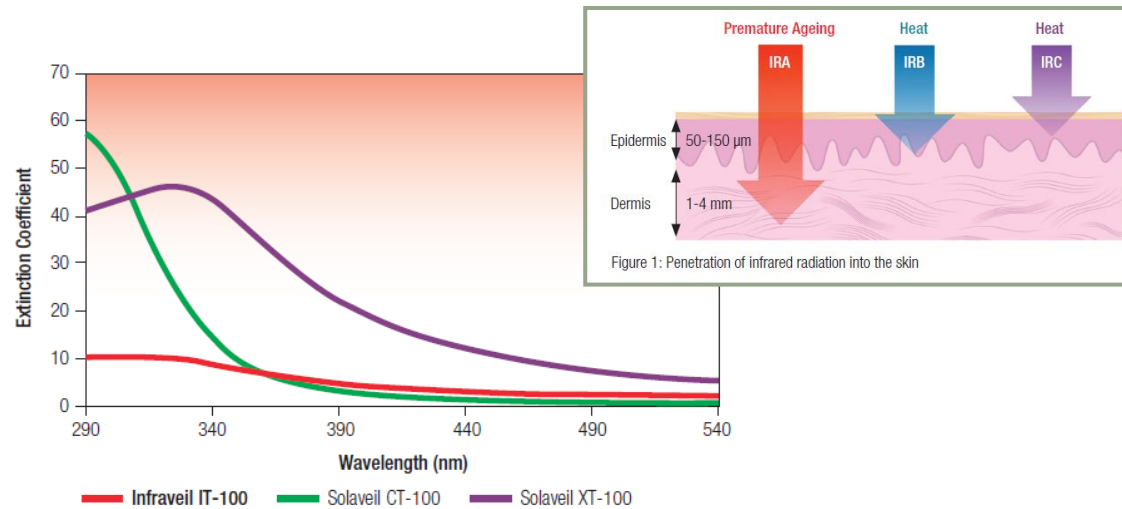


Figure 3: UV/Visible attenuation of Infraveil IT-100 versus Solaveil CT-100 and Solaveil XT-100



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Solaveil™ MicN® Range

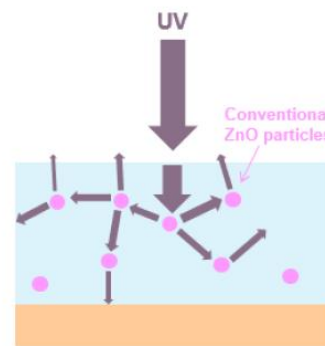


Best of Both Worlds

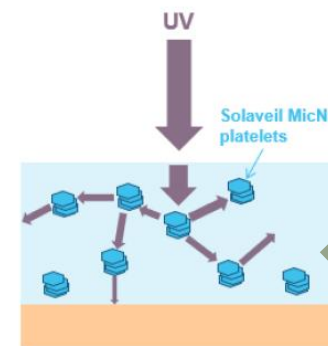
- More transparent on skin than conventional ZnO
- Meets micron-sized particle size of natural brands
- Broad spectrum coverage
- Long lasting SPF and UVA protection
- Hydrophobic coating options



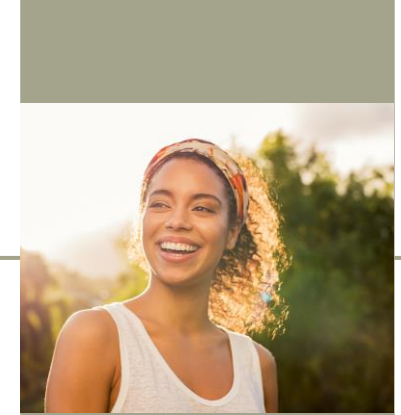
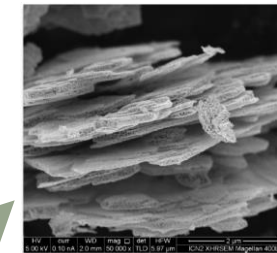
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Conventional ZnO sunscreen:
Scattering/reflection of visible light back to the surface leads to a white appearance on skin



Solaveil MicNo ZnO sunscreen:
Platelets ordered structure results in less scattering/reflection to the surface and therefore unrivalled transparency



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Solaveil™ MicNo® overview



Product name	Type	Description
Solaveil MZP3	Powder	3 = Uncoated
Solaveil MZP7	Powder	7 = Silane coated
Solaveil MZP8	Powder	8 = Stearic coated
Solaveil MZ3-100	Dispersion	3 = Uncoated 100 = Alkyl Benzoate dispersion
Solaveil MZ3-300	Dispersion	3 = Uncoated 300 = GTCC dispersion
Solaveil MZ7-100	Dispersion	7 = Silane coated 100 = Alkyl Benzoate dispersion

Solaveil™ HTP1 MBAL



Smart science to improve lives™

Perfectly Balanced

- Reflect, scatter and absorb UV light generating high SPF efficacy from a single active
- Large particle size with high UVB protection, some UVA protection and without excessive whitening on the skin
- Mild, safe, and non-irritant for sensitive skin
- COSMOS approved

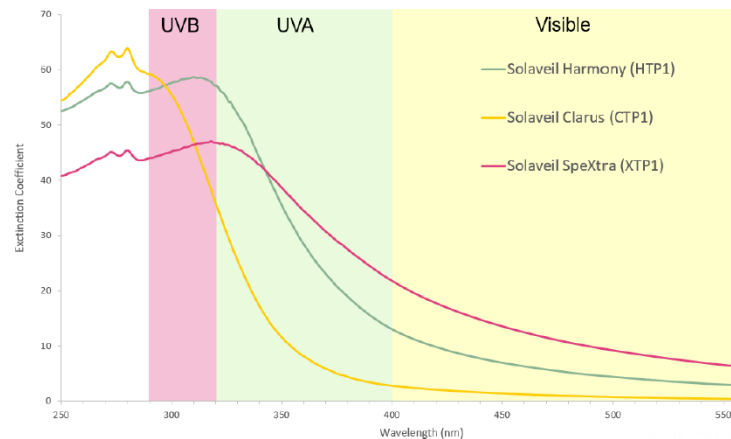


Figure 2 : UV/Visible spectrum for Solaveil Harmony compared to Solaveil Clarus and Solaveil SpeXtra



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A Complete Guide to Vegan Suitable Ingredients for Personal Care

*can be considered to be generally suitable for vegan; however, as there is no single agreed definition nor a standard, global certification, if you are interested in making a vegan claim, please request our Vegan Suitability statement for specifics on this product, and compare to the certification(s) you are seeking to meet.

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