Cargill Beauty
Unleashing Nature Sustainably

Carrageenan range

Thickeners

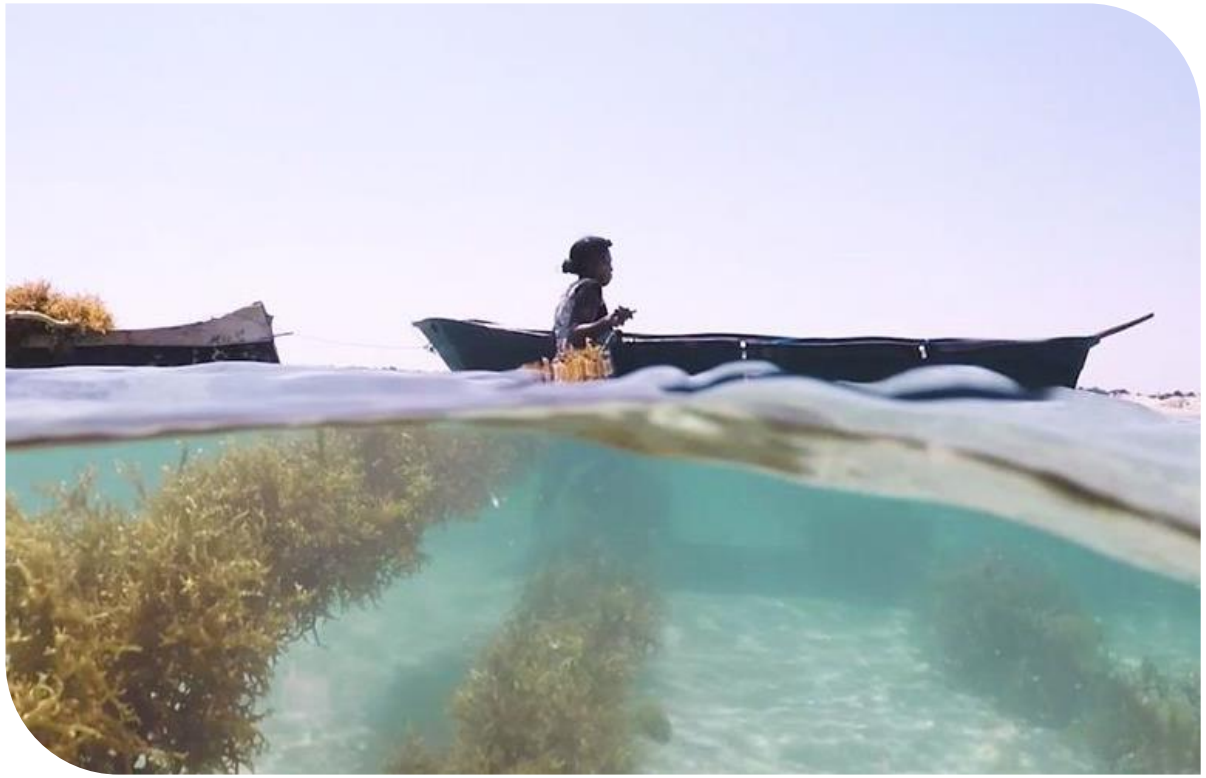
& Gelling agents

100% sustainably sourced from Red Seaweed

Cargill® Helping the world thrive

Seaweeds

among the fastest growing organisms on the planet. Only 2 to 4 months are needed for their regeneration after harvesting.



Carrageenans

are a family of natural gelling, thickening, and stabilizing agents that are extracted from red seaweeds.

Transparent Sourcing

95% of global supply concentrated in a few geographic areas:

90% farmed

10% wild

Seaweeds are transported to France by boat

Cargill® Helping the world thrive

Red Seaweed Promise™ Externally verified by Proforest™

Empower seaweed producers

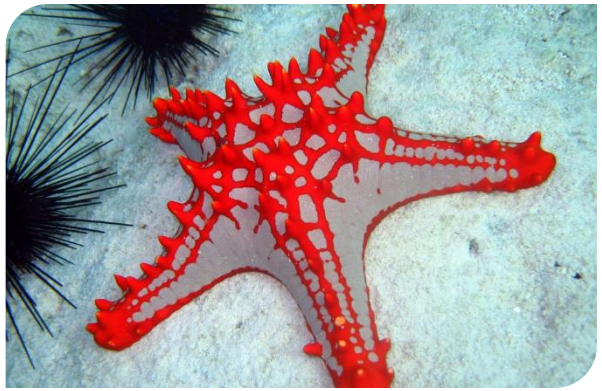
Providing training, coaching and tools to support best environmental, and safe production practices.

Strengthen partnerships

Leveraging Cargill's network to accelerate progress towards a sustainable and transparent global seaweed supply chain.

Improve community prosperity

Enabling seaweed producers and their communities to achieve better incomes & Promote gender equality.



Conserve marine habitats

Seaweed serves as an alternative means of income therefore it helps mitigate the threat of overfishing. The cultivation is made in the right habitats avoiding the areas containing corals and sea grasses.

Source : The Red Seaweed Promise™ Progress Report 2021

Cargill

81%

of French BPC consumers say brands should give more information on how their natural/organic products are made

Source : Mintel Attitudes towards Natural Beauty - Europe – 2020 87% Spain, 86% Italy, 75% Germany

“I want to use COSMOS-approved ingredients to create varied textures and amazing sensory experiences”

Cargill® Helping the world thrive

Satiagum™ & Satiagel™ carrageenan range thickening and gelling agents for a full range of textures in gels or emulsions

Fluid gel

Jelly texture

Granite texture

High jelly texture

Brittle gel

Fluid cream

Solid cream

ISO 16128
100%
NATURE DERIVED

COSMOS
APPROVED

READILY
BIODEGRADABLE
ACCORDING TO
OECD 301 B

HALAL

KOSHER

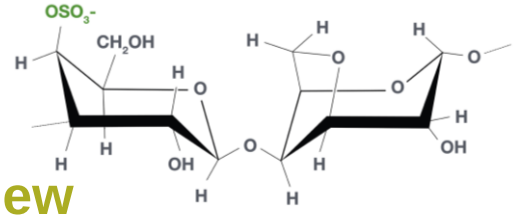
VEGAN SUITABLE
ACCORDING TO
VEGAN.ORG

MADE IN FRANCE

Cargill

Carrageenan range: 1 INCI = 3 grades

Cargill Beauty
Unleashing Nature Sustainably



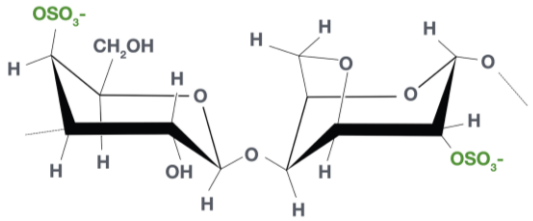
New

Satiagel™ VPC 614

Kappa based

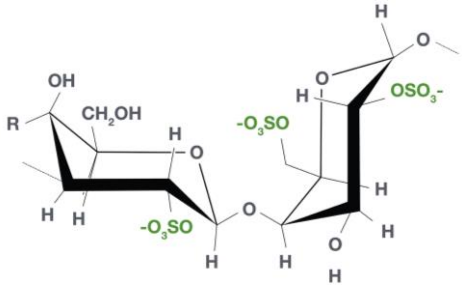
Gelling agent providing **high viscosity** and **solid texture** in combination with salt

Dose of use: 0.1-2.5%



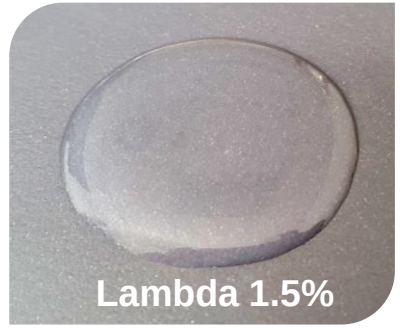
Satiagel™ VPC 508

Iota based
Gelling agent providing **medium to high viscosity** and **elastic gel** texture in combination with salt with **high transparency**
Dose of use: 0.4-2%



Satiagum™ VPC 430

Lambda based
Thickener providing **low to medium viscosity** with **long flow**
Lowers friction, **improves glide**
Dose of use: 0.2-2%



Discover the ingredient video link

Cargill

Carrageenan added benefits

Fresh sensory & Easy to apply

The **shear thinning** rheological profile of carrageenans create an **easy to apply**, sensory experience.

Smooth film forming

Carrageenans have the ability to form a **homogeneous thin film** that smooths immediately the skin: up to 40% smoothness.

Tightening

The appearance of fine lines can significantly be improved by carrageenans. **Microfolds are reduced** up to 16% for an immediate healthy look.

' Protocol: single application of 2mg/cm2 of a serum with 1% Satiagel VPC 614 on skin explant - Polytec TMS-500 light interferometer - Using topography technique

New data available!

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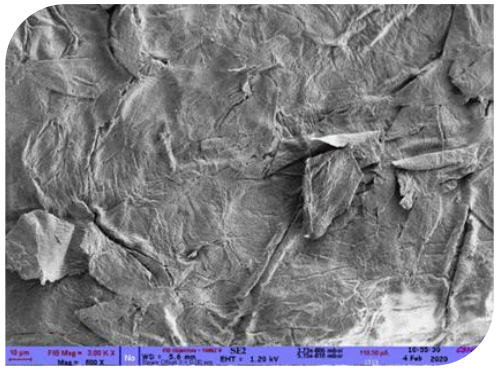
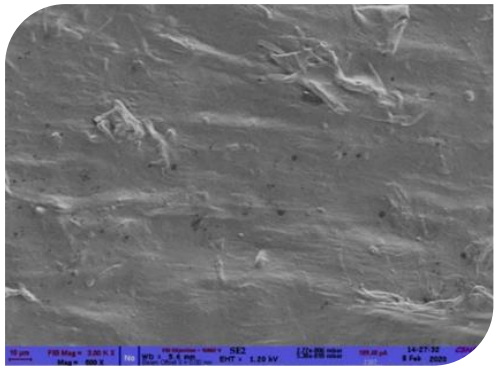
Smooth film forming

Untreated

Treated with blend of carrageenans



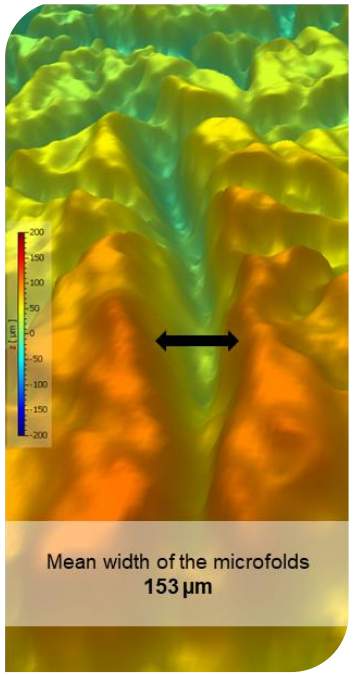


SC Surface

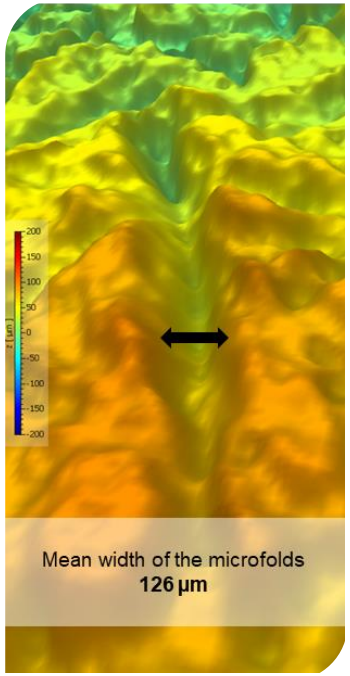
Tightening

Before treatment

10 minutes after treatment



-16%** reduction of microfolds



Protocol: single application of 2mg/cm2 of a serum with 1% Satiagel VPC 614 on skin explant - Polytec TMS-500 light interferometer - Using topography technique

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Carrageenan range versatility in action

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Shower solid gel

Smooth serum

Glide shaving gel

Radiance face sheet mask

Smooth cream gel

Cushion cream

Cargill

Shower solid gel – « Candy Crush »

with Satiagel™ VPC 614 & Satiagum™ VPC 430

Phase	Trade Name	INCI	Supplier	%WT
A	Water	Water	Cargill	Q.S.100
	Citric Acid 50%	Citric Acid		0.20
B	**Refined glycerin**	**Glycerin**	**Cargill**	**26.00**
	Satiagel™ VPC 614	**Carrageenan/Chondrus Crispus Extract**	**Cargill**	**1.80**
	Satiagum™ VPC 430	**Carrageenan/Chondrus Crispus Extract**	**Cargill**	**0.20**
C	Iselux® LQ CLR SB	Sodium Lauroyl Methyl Isethionate	Innospec	20.00
D	Euxyl™ K712	Aqua (and) Sodium Benzoate (and) Potassium Sorbate	Schülke & Mayr	1.00
		Fragrance	Luzi	0.50
	Unicert red K7057-J or Unicert Blue 05601 or Unicert Yellow 6	CI 17200 / CI 42090 / CI 15985	Sensient	Q.S.

>90%
Natural Origin Content*

Process

1. Mix Phase B with spatula and under stirrer add it in Phase A warmed at 70°C.
   Mix with deflocculator 5 min at 1000 rpm. Maintain the temperature at 70°C thanks to a hot plate.
2. Warm Phase C in water bath at 70°C. Add Phase C in Phase A+B, let stir with deflocculator 2 min at 600 rpm
3. Add Phase D let stir 2 min
4. Check the pH from 5.0 to 5.5
5. Pour in the molds and let cooling down to room temperature

Characteristics

- **This sulfate free surfactant solid shower gel monodose highlights the highly gelling properties of the carrageenans and how to get a translucent solid texture without syneresis.**
- **In contact with hot water, the monodose will melt on the skin.**
- Appearance: Solid and transparent gel
- pH: 5.2-5.7
- Stability : passed 2 months stability at RT & T45°C

*according to ISO 16128 (including water)

Smooth serum

with Satiagel™ VPC 614, Satiagel™ VPC 508 & Satiagum™ VPC 430

Phase	Trade Name	INCI	% WT
A	Demineralized Water	Aqua	Q.S.100
		Rosa damascena flower water	60.00
B	**Satiagel™ VPC 614**	**Carrageenan/Chondrus Crispus Extract**	**0.10**
	Satiagel™ VPC 508	**Carrageenan/Chondrus Crispus Extract**	**0.20**
	Satiagum™ VPC 430	**Carrageenan/Chondrus Crispus Extract**	**0.70**
C	Refined Glycerin	Glycerin	2.50
D	Euxyl™ K712	Aqua (and) Sodium Benzoate (and) Potassium Sorbate	1.00

>90%

Natural Origin Content*

Process

1. Prepare phase A and warm it to around 75°C
2. Add phase B to phase A and mix (Ultra Turrax IKA T-25; 5000rpm; 5min)
3. Add phase C in phase A and homogenize (Ultra Turrax IKA T-25; 5000rmp; 3min)
4. Add phase D to the mix and homogenize until the emulsion is homogenous (Ultra Turrax IKA T-25; 5000rpm)
5. Adjust the pH to around 5-5.5

Characteristics

- **The unique texture of this serum was obtained with a specific ratio of the 3 carrageenans.**
- **Its texture is easily breakable to offer a fresh and watery application. The cohesive structure of the gel allows easy pumping.**
- Appearance: clear gel
- pH: 5.2 – 5.7
- Viscosity**: 3500 – 7000 mPa.s
- Stability : passed 2 months stability at RT & T45°C

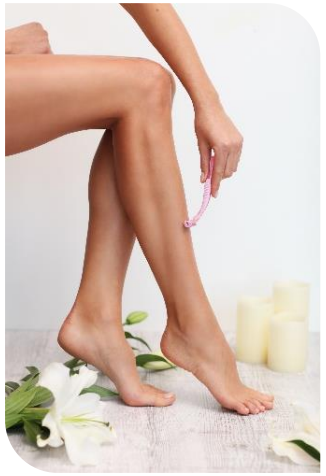
*according to ISO 16128 (including water) **Brookfield RV DV-II +, spindle 4 , 20RPM, 2min, RT after 24 hours

Glide shaving gel

with Satiagum™ VPC 430

Phase	Trade Name	INCI	% WT
A	Demineralized Water	Aqua	Q.S.100
	Satiagum™ VPC 430	**Carrageenan/Chondrus Crispus Extract**	**2.00**
		Aloe barbadensis leaf juice powder	0.40
		Allantoin	0.20
		Hyaluronic acid	0.10
B	**Refined Glycerin**	**Glycerin**	**15.00**
C		Lavandula angustifolia oil	0.05
		Coco-glucoside	1.25
	Demineralized Water	Aqua	4.00
D	Euxyl™ K712	Aqua (and) Sodium Benzoate (and) Potassium Sorbate	1.00
		CI 17200/Red 33	0.12
		CI 42090/Blue 1	0.09

>90%
Natural Origin Content*



Process

1. Prepare phase A and mix it (Ultra Turrax IKA T-25; 9000rpm; 10min)
2. Add phase B in phase A and mix (Ultra Turrax IKA T-25; 9000rpm; 5min)
3. Prepare phase C in a separate beaker then add it to phase A under stirring (Turbotest VMI EVO STD; 1000rpm)
4. Add phase D under stirring (Turbotest VMI EVO STD; 1000rpm)
5. Adjust pH to around 5-5.5

Characteristics

- **This shaving gel formulation highlights the viscosifying property as well as the gliding effect of the Satiagum™ VPC 430 (lambda carrageenan). This formula could improve razor glide on the skin.**
- Appearance: purple translucent and viscous gel
- pH: 5.2 – 5.7
- Viscosity**: 4500 – 6500 mPa.s
- Stability: passed 2 months stability at RT & T45°C

*according to ISO 16128 (including water) **Brookfield RV DV-II + , spindle 4, 20RPM, 2min, RT after 24 hours

Satiagum™ VPC 430

Improve the glide of formulations as « silicone alternative »

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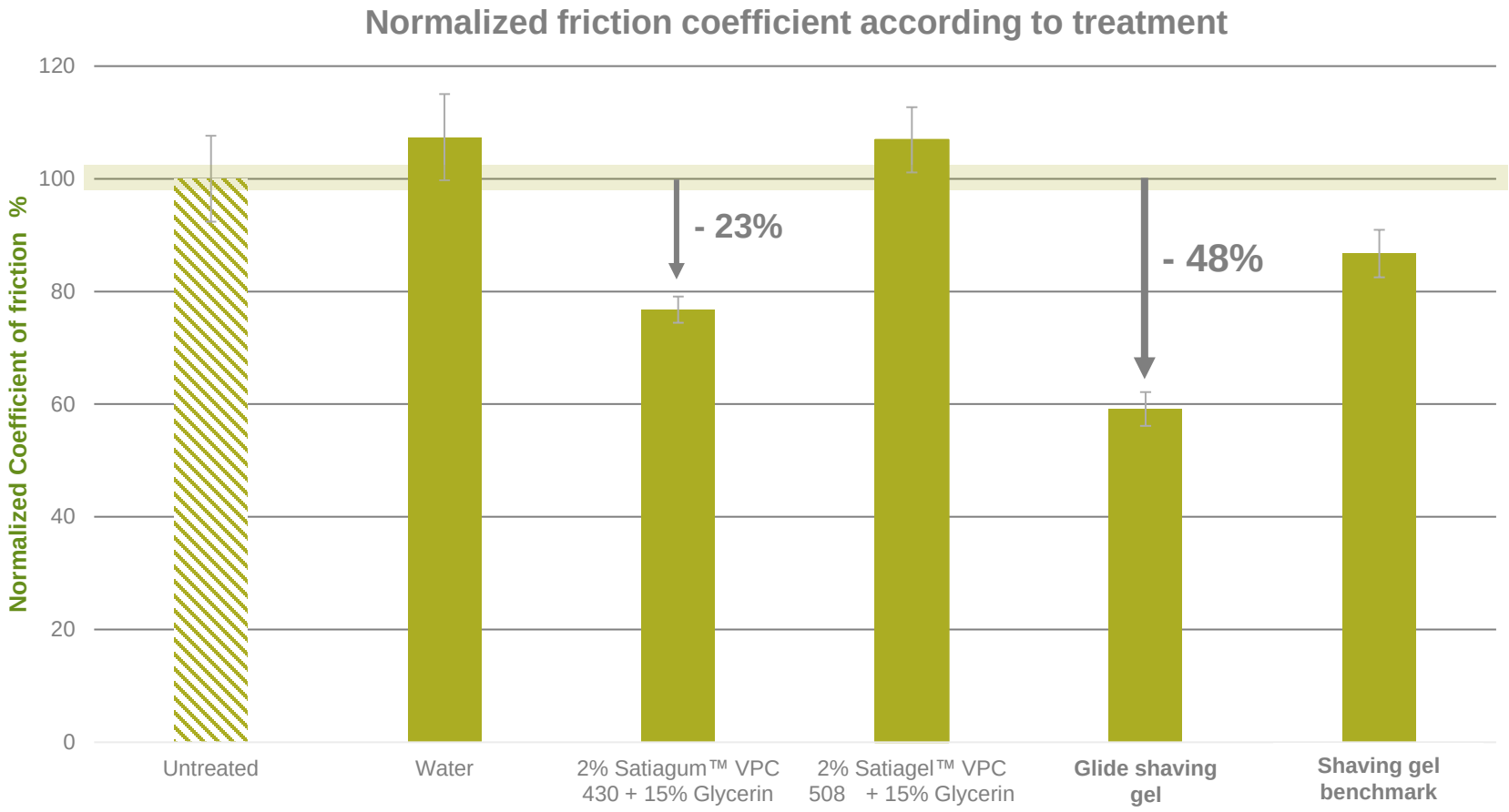

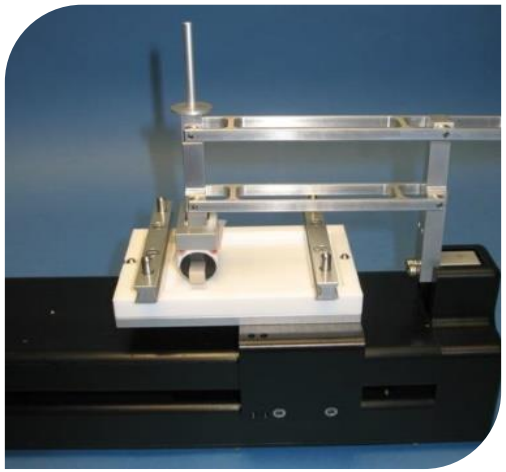

Dia-Stron™ accessory MTT175 – Friction

Satiagum™ VPC 430 at 2%
has a significant **friction reduction**
vs a non treated *Vitro-skin*®

Results are compared to a non treated Vitro-skin®, used as a reference (n =3)

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Expert panel sensory profile

Cargill Beauty
Unleashing Nature Sustainably

Smooth serum

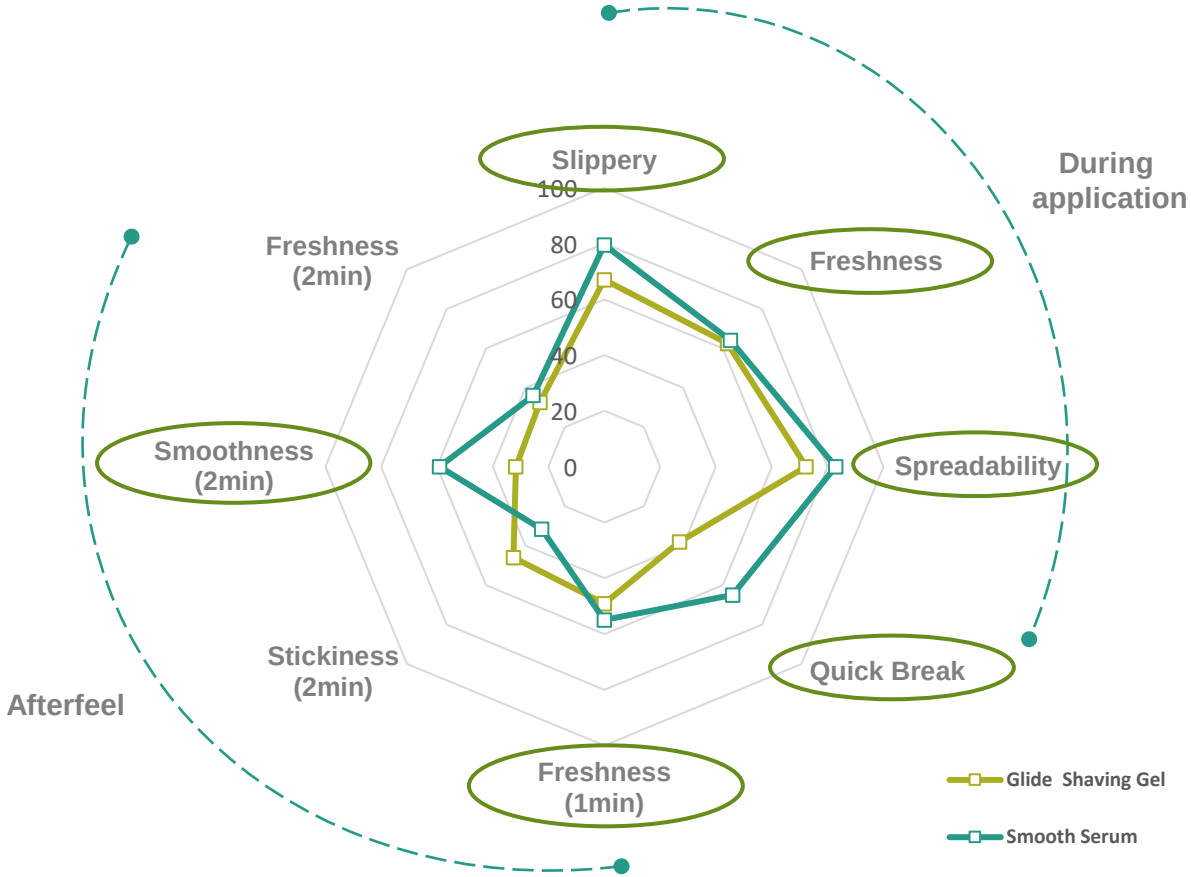
1% Carrageenans blend
70% λ / 20% ι / 10% κ

Smooth serum without Rosa damascena flower water.

Glide Shaving Gel

2% Carrageenan
100% λ

Glide shaving gel without lavender oil essential and colorants.
After feel of the glide shaving gel made without rinse off



Sensory profile of the Smooth serum and the Glide shaving gel prototypes
(n=10 expert panel – Caucasian skin type – 5 males & 5 females - nr of data 30)

Key learnings

- ✓ Aqueous base formula made with carrageenans brings **freshness** at the application and during the after feel.
- ✓ In both formulas, **lambda** carrageenan brings good **slip & spreadability**
- ✓ The serum has a **quick breaking texture** & a **smooth after feel**

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Smooth Cream Gel

with Satiagel™ VPC 614, Satiagel™ VPC 508 & Satiagum™ VPC 430

Phase	Trade Name	INCI	% WT
A	Demineralized Water	Aqua	Q.S.100
B	**Satiagel™ VPC 614**	**Carrageenan / Chondrus crispus extract**	**0.15**
	Satiagel™ VPC 508	**Carrageenan / Chondrus crispus extract**	**0.30**
	Satiagum™ VPC 430	**Carrageenan / Chondrus crispus extract**	**1.05**
C		Caprylic/Capric Triglyceride	20.00
	StarDesign™ Care	**Hydroxypropyl Starch Phosphate**	**2.00**
D		Coco-glucoside	0.20
E	Euxyl™ K712	Aqua (and) Sodium Benzoate (and) Potassium Sorbate	1.00

>99%
Natural Origin Content*

Process

1. Prepare phase A and warm it around 70°C. Add phase B in phase A and mix for 10 min (Ultra Turrax IKA T-25, 5000rpm).
2. Let the mixture cool down slowly to around 40°C (be careful, Satiagel™ VPC 614 (kappa) can become quite solid)
3. then add phase D in phase A+B. Add Phase C in phase A+B+D in three 1/3 portions under stirring (Silverson L5M-A 4000rpm, 5min in total).
4. Add phase E to the mix and mix quickly until the emulsion is homogenous. Adjust the pH to around 5.5

Characteristics

- **This smooth cream gel shows the creamy and jelly texture that is accessible by using ternary blend of carrageenans.**
- **The sensation when applied on the skin is fresh and light.**
- Appearance: smooth and jelly texture
- pH: 5.2 - 5.7
- Viscosity**: 18 000 – 20 000 mPa·s
- Stable after 2 months at 45°C and RT

*according to ISO 16128 (including water) **Brookfield RV DV-II + Pro - 20 rpm – 2 min – Spindle 6

Cushion Cream

with Satiagel™ VPC 614 & Satiagum™ VPC 430

Phase	Trade Name	INCI	% WT
A	Demineralized Water	Aqua	Q.S.100
B	**Satiagel™ VPC 614**	**Carrageenan / Chondrus crispus extract**	**0.30**
	Satiagum™ VPC 430	**Carrageenan / Chondrus crispus extract**	**0.20**
		Caprylic Capric Triglyceride	15.00
C	**StarDesign™ Care**	**Hydroxypropyl Starch Phosphate**	**2.00**
		Glyceryl stearate	1.50
		Glyceryl stearate citrate	1.50
		Cetyl alcohol	2.00
D	Euxyl™ K712	Aqua (and) Sodium Benzoate (and) Potassium Sorbate	1.00
E	(Blackberry fragrance)	Parfum, Limonene, Linalool, Alpha-Isomethyl ionone, Citronellol, Eugenol, Citral, Geraniol, Benzyl alcohol	0.20

Process

1. Prepare phase C and warm it around 75°C
2. Warm phase A around 75-80°C then add phase B in phase A and mix for 5 min (Ultra-Turrax IKA T-25, 5000rpm)
3. Add Phase C in phase A+B in three portions under stirring (Silverson L5M-A 4000rpm, 5min in total).
4. Add phase D and mix quickly until the emulsion is homogenous.
5. Let it cool down below 40-45°C with a propeller then add phase E
6. Adjust the pH to around 5-5,5.

>99%
Natural Origin Content*

Characteristics

- **The cushion cream is an example of solid and breakable cream accessible in combining the lambda and kappa carrageenans.**
- **A very innovative texture, like a cushion under your finger that will melt while spreading on your skin.**
- Appearance: solid cream
- pH: 5.0-5.5
- Viscosity**: 25 000 – 30 000 mPa.s
- Stability : passed 2 months stability at RT & T45°C

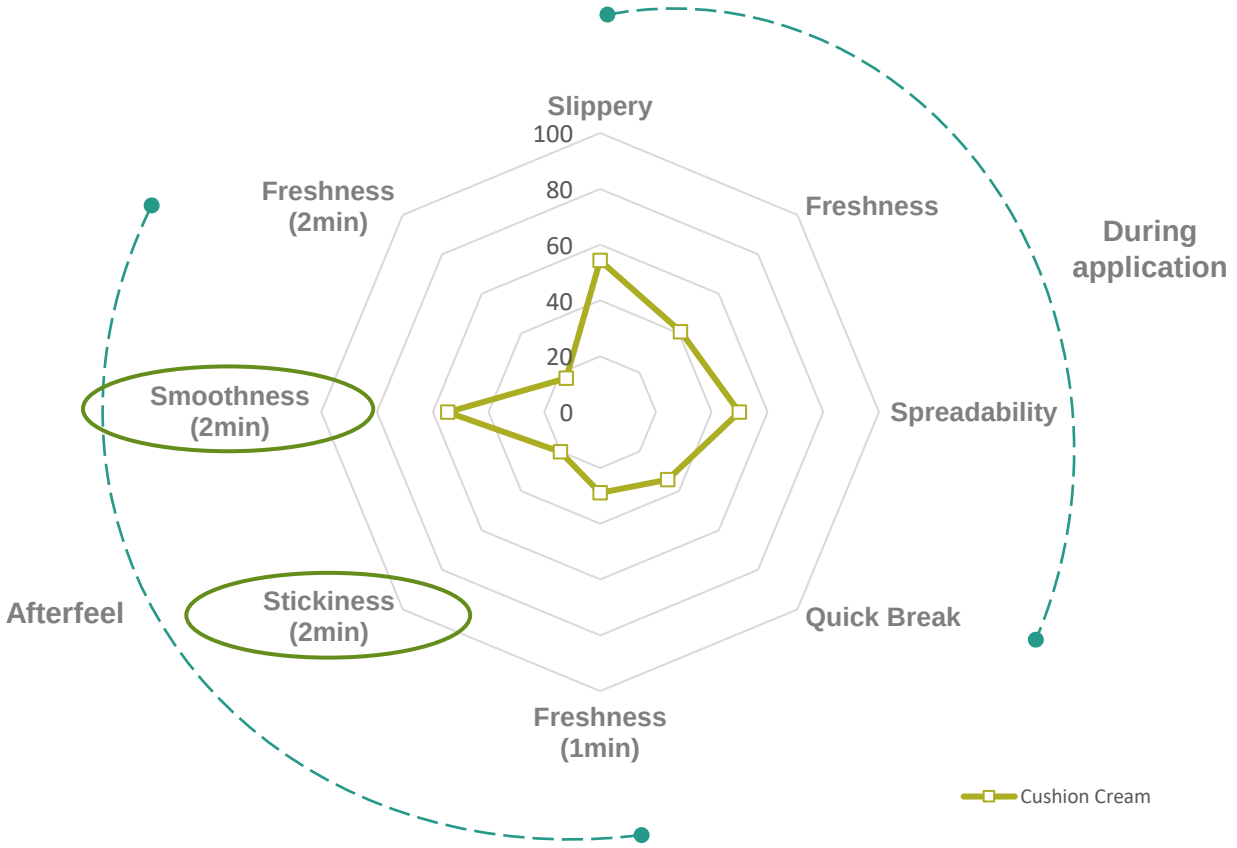
*according to ISO 16128 (including water) **Brookfield RV DV-II +, spindle 6 , 20RPM, 2min, RT after 24 hours

Expert panel sensory profile

0,5% Carrageenans blend + 2% StarDesign™ Care

40% λ / 60% κ

Cushion cream was tested without perfume & colorant



Sensory profile of the cushion cream prototype
(n=10 expert panel –Caucasian skin type – 5 males & 5 females - nr of data 30).

Key learning

✓ **Non sticky and very smooth** formula

Radiance face sheet mask

Satiagum™ VPC 430

Phase	Trade name	INCI	Supplier	% WT
	Water	Water		79.39
	Satiagum™ VPC 430	**Carrageenan / Chondrus crispus extract**	**Cargill**	**1.00**
A	Symsave™ H	Hydroxyacetophenone	Symrise	0.50
	1,3-BG	Butylene Glycol		9.00
	Glycerin	**Glycerin**	**Cargill**	**5.00**
B	Dipotassium glycyrrhizate	Dipotassium glycyrrhizate		0.05
	Allantoin	Allantoin	Ashland	0.20
	Hydrolite™ 6 O	1,2-Hexanediol	Symrise	0.50
	Zerose™ Erythritol B STD Gran	**Erythritol**	**Cargill**	**2.00**
	EDTA2Na (5% sol)	Disodium EDTA		1.00
C	1,3-BG	Butylene Glycol		1.00
	Eumulgin™ CO 40	PEG-40 Hydrogenated castor oil	Basf	0.30
	Pink blossoms 841613	Parfum	Symrise	0.05
D	Sodium hydroxide (10% sol)	Sodium hydroxide		0.02

Process

1. Add water into tank, add Satiagum™ VPC 430 slowly into tank, stirring at 500rpm, until uniform. then start to heat to 60℃.
2. Add the rest of phase A one by one, until uniform.
3. Stop heat and start cool process, when temperature reach 45 ℃, add phase B one by one, stirring at 500rom until uniform.
4. Prepare phase C, mix in clear liquid, add into tank with stirring at 500 rpm, until uniform.
5. Adjust the pH with Sodium hydroxide (10%) manually.

>87%
Natural Origin Content*

Characteristics

Satiagum™ VPC 430 (lambda carrageenan) provides the right viscosity for the sheet mask to stay in place.

- **It provides a non sticky and non dry feel and leaves a fresh feeling on the skin after use.**
- Appearance: haze hydrogel
- pH: 5.6 - 6.0
- Viscosity 300 - 500 mPa.s
- Stability : passed 2 months stability at RT & T45°C

*according to ISO 16128 (including water)

Leveraging global knowledge across markets

Cargill Beauty
Unleashing Nature Sustainably

5 Beauty Application Centers

Cargill

Product information

	Satiagel™ VPC 614	Satiagel™ VPC 508	Satiagum™ VPC 430
Source	RED SEAWEED FARMED	RED SEAWEED FARMED	RED SEAWEED WILD
Packaging	25 kg (net) PE bags hermetically sealed		
Shelf life	24 months		
INCI IECIC listed : *Chondrus crispus extract*	✓	✓	✓

- ISO 16128
  100%
  NATURE DERIVED
- COSMOS APPROVED
- READILY BIODEGRADABLE ACCORDING TO OECD 301 B
- HALAL
- KOSHER
- VEGAN SUITABLE ACCORDING TO VEGAN.ORG
- MADE IN FRANCE

Get a around a red seaweed farm

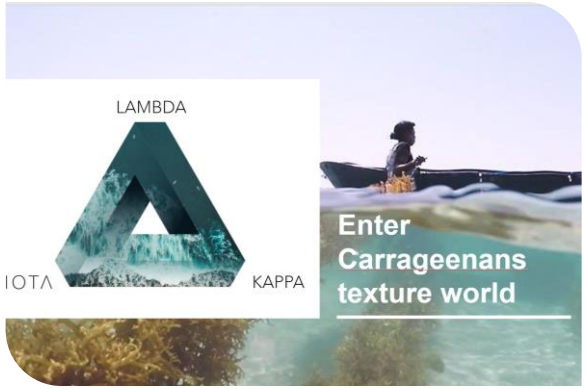
An interactive experience available at :

Beauty Of The World (discoverbeautyoftheworld.com)

More on Carrageenans & Red Seaweed Promise™

Carrageenan technology

Go deep into the chemistry of carrageenans



Carrageenan full range

Find out the method to take advantage of the carrageenan trio to develop new textures

Synergy with starches

Discover the synergies possible between iota carrageenan Satiagel™ VPC 508 with starch derived ingredients

Red Seaweed Promise™

Learn about how Cargill and our partners are making waves in seaweed sustainability

Cargill

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The labeling, substantiation and decision making of all claims for your products is your responsibility. We recommend you consult regulatory and legal advisors familiar with applicable laws, rules and regulations prior to making labeling claims decisions.


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Helping the world thrive