

POLYMEREXPERT PRESENTS

OLEOFILM GREEN

100% biosourced film-former
for oily phase

Formulation Guide 2024





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Table of content

- SPF 50 Face Cream WRp.04
- SPF 30 Body Lotion WRp.06
- Macchiato Foundation.....p.08
- Ruby Chocolate Lip Cream.....p.10
- Golden Chai Eyeshadow.....p.12
- Black Espresso Mascara.....p.14
- Anti-acne body serum.....p.16
- Perfumed Body Lotion.....p.18



About

- INCI: Hydrogenated Castor Oil/Sebacic Acid Copolymer
- Natural Origin Index: 1.0 (ISO16128)
- Processing temperature: 75°C
- Solubility: Oil
- Use: 1 to 5%
- China INCI compliant
- RSPO Certified

Presentation

OleoFilm Green is a revolutionary 100% biobased film-former tailored for cosmetics which offers a sustainable alternative to synthetic polymers. Our innovative approach involves eco-designing a film-forming polyester from natural origins, utilizing renewable resources. It meets the increasing demand for high-performance, eco-friendly products, representing a significant stride towards sustainability in the beauty industry.



Technical advantage

OleoFilm Green demonstrates a harmonious blend of cohesion and adhesion to the skin. Achieving this balance required meticulous selection of building blocks to fine-tune key characteristics like molar mass, crystallinity, and surface free energy. Through this process, the polyester's resistance to water and oils was optimized, ensuring its suitability for various cosmetic applications.

Benefits for several applications

It is an ideal ingredient for **suncare** and **make-up** formulations:

- **Boosts water resistance**

Suitable for W/O and O/W emulsions and both organic and mineral filters

- **Enhances anti-transfer properties**

Suitable for emulsions and anhydrous formulations, the adhesion properties have been optimised to maximize pigment adherence to the skin, ensuring long-lasting wear and minimal transfer

- **Improves pigment dispersion**

Creates a uniform and stable matrix for pigment particles, it ensures even distribution, consistent color and prevents settling or clumping



Anti-Transfer test

Formula:

W/O emulsion

3% film-forming agent

Protocol:

- Apply the foundation on a Bioskin
- Dry for 15 minutes
- Place tissue
- Press 2 kg for 5 seconds
- Transfer measurement

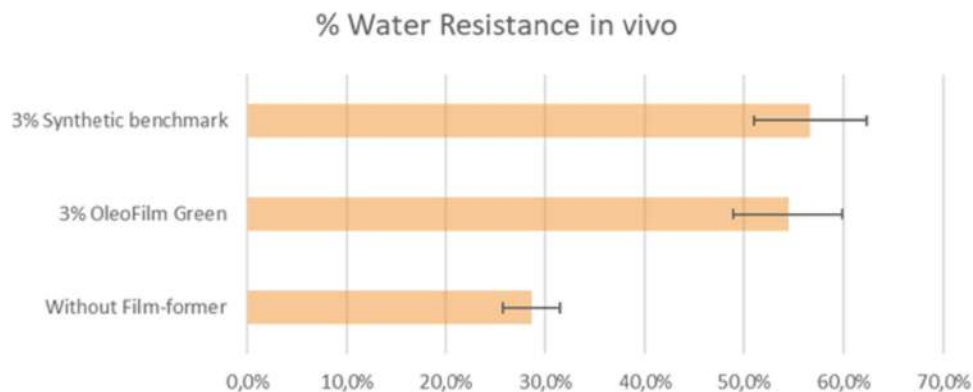
With
OleoFilm Green

Without
OleoFilm Green



4 times less transfer with OleoFilm Green!

Water resistance test



Synthetic Benchmark	OleoFilm Green	Without Film Former
56.6%	54.4%	28.6%

Formula:

O/W emulsion
3% film-forming agent

Protocol:

- In vivo water resistance
- 3 volunteers

SPF 50 Face Cream WR

Water-resistant sunscreen with a comfortable and enjoyable feel upon application

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	42.60
A	Preservatives	Preservatives	-	0.60
B	Glycerin	Glycerin	-	3.00
B	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.40
C	Parsol® EHS	Ethylhexyl Salicylate	DSM	5.00
C	Uvinul® T 150	Ethylhexyl Triazone	BASF	5.00
C	Tinosorb® S	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	BASF	3.00
C	Uvinul® A Plus Granular	Diethylamino Hydroxybenzoyl Hexyl Benzoate	BASF	10.00
C	DUB DIS	Diisopropyl Sebacate	Stéarinerie Dubois	10.00
C	DUB DIPA	Diisopropyl Adipate	Stéarinerie Dubois	12.00
C	Amphisol® K	Potassium Cetyl Phosphate	IES Ingredients	0.90
C	TEGO® Care PBS 6 MB	Polyglyceryl-6 Stearate (and) Polyglyceryl-6 Behenate	Evonik	4.00
C	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	3.00
D	Parfum Monoï Ensoleillé	Fragrance	Mane	0.50

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SPF 50 Face Cream WR



Process

- Add the ingredients of the Phase A to the main beaker and heat up to 80°C under stirring
- Premix the Phase B and add it to A
- Add the ingredients of the Phase C to a secondary beaker and heat up to 80°C under stirring
- Make the emulsion pouring C into A+B and stir for 15 minutes
- Cool to 30 - 35°C
- Add the Phase D and mix well

Benefits

- Water resistance
- Comfortable and enjoyable feel upon application
- Stabilization

SPF 30 Body Lotion WR

Fluid and sprayable body lotion

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	41.60
A	Preservatives	Preservatives	-	1.70
B	Glycerin	Glycerin	-	2.00
B	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.20
C	Parsol® EHS	Ethylhexyl Salicylate	IES Ingredients	5.00
C	Uvinul® T 150	Ethylhexyl Triazone	BASF	2.00
C	Tinosorb® S	Bis-Ethylhexyloxyphenol Methoxyphenyl Triazine	BASF	2.50
C	Uvinul® A Plus Granular	Diethylamino Hydroxybenzoyl Hexyl Benzoate	BASF	2.00
C	DUB DIS	Diisopropyl Sebacate	Stéarinerie Dubois	2.00
C	DUB DIPA	Diisopropyl Adipate	Stéarinerie Dubois	9.00
C	Montanov™ L	C14-22 Alcohols (and) C12-20 Alkyl Glucoside	Seppic	2.30
C	Axol® C 62	Glyceryl Stearate Citrate	Evonik	1.00
C	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	3.00
D	Parfum Monoï Ensoleillé	Fragrance	Mane	0.50
E	Demineralized Water	Water	-	20.00
E	Parsol® HS	Phenylbenzimidazole Sulfonic Acid	IES Ingredients	2.00
E	NaOH (sol. 10%)	Water (and) Sodium Hydroxide	-	3.20

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SPF 30 Body Lotion WR



Process

- Add the ingredients of the Phase A to the main beaker and heat up to 80°C under stirring
- Premix the Phase B and add it to A
- Add the ingredients of the Phase C to a secondary beaker and heat up to 80°C under stirring
- Make the emulsion pouring C into A+B and stir for 15 minutes
- Cool to 30 - 35°C
- Add the Phase D and mix well
- Prepare the Phase E and add it to the emulsion when the solution is homogeneous

Benefits

- Water resistance
- Comfortable and enjoyable feel upon application
- Stabilization

Macchiato Foundation

Flawless finish foundation, superior pigment dispersion, good coverage and anti-transfer

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	55.00
A	Glycerin	Glycerin	-	3.00
A	Sodium Chloride	Sodium Chloride	-	1.00
B	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	15.00
B	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	3.00
B	EstoGel® Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	1.00
B	Salacos® HS-6C	Polyhydroxystearic Acid	Summit Cosmetic Europe	1.00
C	Cetiol® Ultimate	Undecane (and) Tridecane	BASF	9.00
D	Unipure White LC 981 HLC	CI 77891 (and) Hydrogenated Lecithin	Sensient	4.58
D	Unipure Yellow LC 182 HLC	CI 77492 (and) Hydrogenated Lecithin	Sensient	1.90
D	Unipure Red LC 381 HLC	CI 77491 (and) Hydrogenated Lecithin	Sensient	0.70
D	Unipure Black LC 989 HLC	CI 77499 (and) Hydrogenated Lecithin	Sensient	0.32
E	Plurol® Diisostearique CG	Polyglyceryl-3 Diisostearate	Gattefossé	2.00
E	Dehymuls® PGPH	Polyglyceryl-2 Dipolyhydroxystearate	BASF	2.00
F	Parfum Vanille Gourmande	Fragrance	Mane	0.50

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Macchiato foundation



Process

- Add the ingredients of B to the main beaker and heat up to 80°C under stirring
- At 80°C, unfold the polymer under stirring for 20 minutes
- Cool to 70°C
- Add C to B and mix well
- Cool to 55°C
- Add the pigments to B+C and homogenize
- Add E and mix well
- Add the ingredients of A into a secondary beaker and heat up to 50°C under stirring
- Make the emulsion pouring A into the oily phase and stir for 15 minutes
- Cool to 40°C
- Add the fragrance and mix well

Benefits

- Anti-transfer properties
- Excellent pigment dispersion and good coverage for a flawless finish
- Stabilization

Ruby Chocolate Lip Cream

Perfect matte finish lip cream with no transfer

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	NWD-8462 Titanium Dioxide	Hydrogenated Rapeseed Oil (and) Heptyl Undecylenate	Maprecos	12.00
A	NWD-7336 Red Iron Oxide	Hydrogenated Rapeseed Oil (and) Heptyl Undecylenate	Maprecos	8.00
A	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	4.00
A	Cosmedia® Gel CC	Dicaprylyl Carbonate (and) Stearalkonium Hectorite (and) Propylene Carbonate	BASF	10.00
A	Lusplan™ DD-DA7	Dimer Dilinoleyl Dimer Dilinoleate	Unipex	10.00
A	EstoGel® Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	1.00
B	Permethyl™ 99A	Isododecane	Presperse	39.20
C	Satinier M5	Silica	Summit Cosmetics Europe	10.00
C	MGMY/L	Magnesium Myristate	Summit Cosmetics Europe	5.00
D	Covi-ox® T 70 C	Tocopherol	BASF	0.30
D	Parfum Vanille Gourmande	Fragrance	Mane	0.50

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Ruby Chocolate Lip Cream



Process

- Add A to a beaker and heat up to 80°C under stirring
- At 80°C, unfold the polymer under stirring for 20 minutes
- Cool to 60°C
- Add B and mix well
- Add C and homogenize
- Add D and mix well

Benefits

- Zero transfer and fast-drying formula, ensuring a smooth and matte finish
- Even dispersion, providing consistent color and coverage

Golden Chai Eyeshadow

Luxury texture-changing eye shadow

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	EstoGel® Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	4.00
A	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	6.00
A	DUB PO	Ethylhexyl Palmitate	Stéarinerie Dubois	22.00
B	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	3.00
C	Rice Bran Wax	Oryza Sativa (Rice) Bran Wax	-	8.00
C	Beeswax	Beeswax	-	7.00
D	Permethyl™ 101A	Isohexadecane	Presperse	20.00
E	Satinier M5	Silica	Summit Cosmetics Europe	10.00
F	Intenza® EnvY	Synthetic Fluorophlogopite (and) Titanium Dioxide (and) Blue 1 Lake (and) Yellow 5 Lake	Maprecos	0.15
F	SunSHINE® Super Golden	Synthetic Fluorophlogopite (and) Titanium Dioxide (and) Iron Oxides	Maprecos	18.32
F	SunSHINE® Soft Bronze	Synthetic Fluorophlogopite (and) Iron Oxides	Maprecos	1.53

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Golden Chai Eyeshadow



Process

- Add A to a beaker and heat up to 80°C under stirring
- At 80°C, disperse EstoGel Green under stirring for 20 minutes
- Add B to A and mix well
- Add C to A+B and mix well
- Cool to 70°C
- Add D to A+B+C and mix well
- Add the silica and mix well
- Add the glitters and mix well

Benefits

- Transformative texture: from solid to creamy eyeshadow and disappears into powder
- Uniform film formation and enhanced anti-transfer features

Black Espresso Mascara

Long-lasting black mascara with a perfect application for layering

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	50.90
A	Preservatives	Preservatives	-	0.60
A	Natpure Film AP	Pullulan (and) Sorbitol (and) Trehalose (and) Acacia Senegal Gum	Sensient	1.00
B	Butylene Glycol	Butylene Glycol	-	3.00
B	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.30
C	AMPD-Ultra PC	Aminomethyl Propanediol	Azelis	1.00
D	Cellulobeads D-10	Cellulose	Kobo Products	2.00
D	Unipure Black LC 989	CI 77499	Sensient	8.50
D	Unipure Red LC 381	CI 77491	Sensient	1.50
E	Nat Sunflower Wax	Helianthus Annuus (Sunflower) Seed Wax	Naturochim	9.00
E	Beeswax	Beeswax	-	8.00
E	Carnauba Wax	Copernicia Cerifera (Carnauba) Wax	-	3.00
E	DUB 50 P	Stearic Acid (and) Palmitic Acid	Stéarinerie Dubois	5.00
E	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	3.00
E	Dermol MBDD	Mango Butter Dimer Dilinoleyl Esters/Dimer Dilinoleate Copolymer	DKSH Spain	3.00
F	Covi-ox® T 70 C	Tocopherol	BASF	0.20

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Black Espresso Mascara



Process

- Add A to the main beaker and start stirring
- Premix B and add it to A and mix well
- Add C to A+B and mix well
- Heat up to 85°C
- Add D under vigorous stirring for 20 minutes
- Add E to a secondary beaker and heat up to 85°C under stirring
- Make the emulsion pouring E on A+B+C+D and stir for 20 minutes
- Cool to 40°C
- Add F and mix well

Benefits

- Long lasting wear
- Fast drying upon application, allowing for easy layering

Anti-acne Serum

Light treatment for acne spots

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	71.60
B	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.40
B	Hydrolite® 5 Green	Pentylene Glycol	Safic-Alcan	3.00
C	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	9.00
C	Montanov™ L	C14-22 Alcohols (and) C12-20 Alkyl Glucoside	Seppic	4.00
C	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	2.00
D	Hazelnut Oil	Corylus Avellana Seed Oil	-	3.00
E	Demineralized Water	Water	-	5.00
E	Sodium Benzoate	Sodium Benzoate	Prod'hyg	0.50
E	Potassium Sorbate	Potassium Sorbate	-	0.20
F	Algaktiv® Retinart	Water (Aqua) (and) Propanediol (and) Algae Oligosaccharides (and) Xanthophylls (and) Lactic Acid	Summit Cosmetics Europe	1.00
G	Citric acid	Citric acid	-	qsp

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Anti-acne Serum



Process

- Add A in the main beaker
- Premix B and add it to A, heat up to 80°C
- Add C to a secondary beaker and heat up to 80°C
- Right before emulsion, add phase D to C, keeping temperature at 80°C
- Add C+D to A+B and keep under strong stirring for 10 minutes
- Cool down to 35°C and add E
- Add F
- Adjust pH using citric acid

Benefits

- Formation film sur la peau
- Anti-acne active ingredient
- Très léger sur la peau

Perfumed Body Lotion

An enveloping caress of fragrance for the body

PHASE	TRADE NAME	INCI NAME	Supplier	%
A	Demineralized Water	Water	-	66.00
A	Phenoxyethanol	Phenoxyethanol	-	0.60
B	Glycerin	Glycerin	-	3.00
B	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.40
C	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	20.00
C	Montanov™ 202	Arachidyl Alcohol (and) Behenyl Alcohol (and) Arachidyl Glucoside	Seppic	3.00
C	Glyceryl Stearate	Glyceryl Stearate	-	1.00
C	OleoFilm Green	Hydrogenated Castor Oil/Sebacic Acid Copolymer	PolymerExpert	2.00
C	Lanette® O Or	Cetearyl Alcohol	BASF	1.00
D	Parfum Fleur de Lotus	Fragrance	Mane	3.00

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Perfumd Body Lotion



Process

- Add phase A to the main beaker
- Premix B and add it to A, heat up to 80°C
- Add C to a secondary beaker and heat up to 80°C
- Add C to A+B under strong stirring for 10 minutes
- Cool down to 35°C and add phase D

Benefits

- Long-lasting fragrance
- Soft and silky touch

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