POLYMEREXPERT PRESENTS



EXPERTGEL®

Rheology modifier for aqueous phase



Formulation Guide 2024



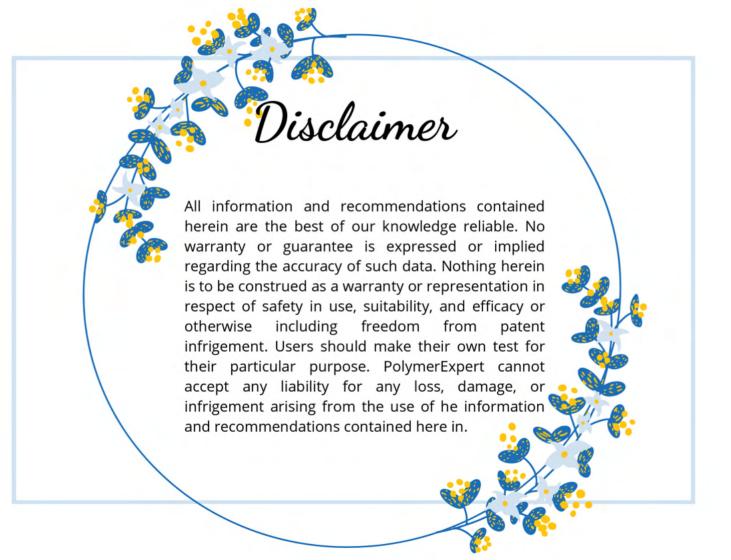


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About

2 available grades:

• EG312: Poloxamer 338 (and) PPG-51/SMDI Copolymer

• EG412: Poloxamer 407 (and) PPG-12/SMDI Copolymer

Apparence: Pellets

Process: Cold

Solubility: Water

Presentation

ExpertGel® is a smart water thickening ingredient that increases viscosity with temperature. When diluted in water, ExpertGel® behaves as liquid at room temperature, then becomes gel when exposed to higher temperature, such as body temperature.

Technical advantage

ExpertGel® is able to reversibily change their physical state from liquid to gel upon a change in temperature, the gelation temperature can be adjusted depending on:

- Grade
- Concentration
- Interaction with other components

Benefits for several applications

It is an ideal ingredient for **suncare**, **make-up**, **skincare**, **haircare** and **fragrance** formulations:

- SPF booster
- Fragrance extender
- Transforming texture
- Emulsion stabilizer



Incredible Rich Cream



Minimalist formula, luxurious sensory experience

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	-	60.18
А	EDTA	Disodium EDTA	-	0.02
Α	Phenoxyethanol	Phenoxyethanol	-	0.60
А	Sensiva® SC 50	Ethylhexylglycerin	DKSH/Schülke & Mayr	0.20
Α	Glycerin	Glycerin	-	5.00
Α	Propanediol	Propanediol	-	3.00
В	Sepinov™ EMT 10	Hydroxyethyl Acrylate/Sodium Acryloyldimethyl Taurate Copolymer	Seppic	0.60
С	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	10.20
С	Parfum	Fragrance	-	0.20
D	Demineralized Water	Water	-	18.00
D	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	2.00

Incredible Rich Cream





Process

- Prepare D in advance solubilizing ExpertGel® in water at room temperature for 1 hour
- Add A in the main beaker and solubilize EDTA
- Disperse B in A until the gel is perfectly homogeneous
- Emulsify for 10 minutes adding C into A+B
- Add the premix D in the gel cream and blend

- Thermogelling properties
- Emulsion stabilizer
- Soft and silky touch

Splash mask



Sprayable mask that transforms into a gel on skin

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	-	69.00
А	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	4.00
В	Glycerin	Glycerin	-	20.00
В	MG-60	Maltooligosyl Glucoside (and) Hydrogenated Starch Hydrolysate	Hayashibara	5.00
В	Pentylene Glycol	Pentylene Glycol	Minasolve	2.00

Splash mask





Process

- Solubilize ExpertGel® in water under gentle stirring
- When the blend is perfectly homogeneous, add B and stir until the product is homogeneous

- Avoid the formula to drop off the face
- Leave the face fresh and moisturized

Confort mask



Deeply moisturizing mask for radiant skin

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
А	Demineralized Water	Water	-	46.60
А	Carbopol® Ultrez 21	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	Lubrizol	0.40
В	Glycerin	Glycerin	-	10.00
В	EDTA	Disodium EDTA	+	0.05
В	Propanediol	Propanediol	÷	3.00
С	Arlacel® 165	Glyceryl Stearate (and) PEG-100 Stearate	BASF	4.00
С	DC200/100	Dimethicone	Dow Corning	3.00
С	DUB MCT 5545	Caprylic/Capric Triglyceride	Stéarinerie Dubois	2.00
С	Lipex® Shea	Butyrospermum Parkii (Shea) Butter	AAK	2.50
С	Lanette® 16	Cetyl Alcohol	BASF	0.50
С	Sensiva® SC50	Ethylhexylglycerin	DKSH/Schülke & Mayr	0.50
С	Copherol® 1250 C	Tocopheryl Acetate	BASF	0.25
D	Demineralized Water	Water		20.00
D	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	2.00
F	Parfum	Fragrance		0.20
G	Alcohol Denat	Alcohol	•	5.00

Confort mask





Process

- Swell Carbpol on top of water, then add glycols and EDTA, heat up to 75°C
- Prepare oily phase by heating together at 75°C Phase C
- Mix oily phase in water under strong stirring using a rotor stator for 10 min
- Cool down to room temperature
- Add the ExpertGel ® solution and all remaining ingredients

- Intense moisturizing
- Easy spreading

Peel Off Mask



Peel-off mask for refreshed skin

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	-	30.00
А	Mowiol 23-88	Polyvinyl Alcohol	Seppic	10.00
В	Demineralized water	Water	-	21.25
В	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	3.00
В	Alcohol Denat	Alcohol		20.00
С	EDTA	Disodium EDTA	-	0.05
D	Glycerin	Glycerin	-	10.00
D	Propylene glycol	Propylene Glycol	-	5.00
Е	Parfum	Fragrance	H. Reynaud & Fils	0.20
Е	Emulgin® CO 40	PEG-40 Hydrogenated Castor Oil	BASF	0.50

Peel Off Mask





Process

- Heat 30% of the water phase up to 60°C then swell Mowiol and mix slowly until homogeneous, cool down to RT
- Prepare ExpertGel® solution by adding 21.25% of cold water, 20% of ethanol, and swell ExpertGel®
- Add EDTA to the ExpertGel® solution, then add glycols
- Add the mix fragrance/solubilizer
- Then add very slowly the Mowiol solution and mix until homogenous

Benefits

The mask is very soft and easy to remove

Plumping Lip Serum



Lip serum for enhanced volume and hydration

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized water	Water	÷	80.25
Α	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	4.00
В	Glycerin	Glycerin	-	10.00
В	Phenoxyethanol	Phenoxyethanol	-	0.60
С	Citric acid	Citric acid	7-	QSF
D	Phytessence™ Stevia GL	Aqua (and) Glycerin (and) Stevia Rebaudiana Extract	Croda	2.00
D	Adeplump	Butylene Glycol (and) Water (and) Arnica Montana Flower Extract	Safic-Alcan	1.00
E	Plantacare® 2000 UP	Decyl Glucoside	BASF	2.00
E	Peppermint oil	Mentha Piperita Oil		0.15







Process

- In the main beaker, mix A and B and ajust the pH to 3.35
- Add phase D
- Add phase E and adjust pH to 4

- Forms a protective film on the lips
- Increases lips' volume



Make-up Fixator

After-make-up spray to improve its longevity

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	-	85.90
Α	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	3.00
В	Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	DKSH / Schûlke & Mayr	0.50
В	EDTA	Tetrasodium EDTA		0.05
В	Alcohol Denat	Alcohol	-	10.00
С	Parfum	Fragrance	H.Reynaud & Fils	0.05
С	Tween® 20	Polysorbate 20	Masso	0.50

Make-up Fixator





Process

- Swell EG412 into cold water under agitation
- Once EG412 is colmpletely dispersed add EDTA, Euxyl® PE 9010 and Ethanol to the mix
- Then add the premix Fragrance & Tween® 20

- Easy to spray
- Fluid at ambient temperature and gelify when applied on the skin

Lip Tint



High definition moisturising lip ink

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	-	58.00
Α	Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	DKSH / Schülke & Mayr	0.80
Α	Alcohol Denat	Alcohol	9	5.00
Α	Glycerin	Glycerin	-	5.00
В	Demineralized Water	Water	-	25.00
В	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	3.50
С	Red coloring	CI 17200	4	0.20
С	Tween® 20	Polysorbate 20	Masso	2.00
D	Parfum	Fragrance	-	0.50

Lip Tint





Process

- Prepare a premix with the ingredients of the phase B, stir slowly at room temperature until ExpertGel® is fully solubilized
- Introduce the ingredients of the phase A in the main beaker and homogenize
- Add B to A and homogenize
- Add C once the blend is perfectly homogeneous and uniform
- Add C and blend until the product is homogeneous

- Unlike standard lip inks, this product does not dry out the lips
- ExpertGel® ensures perfect definition of the product on the lips
- No migration of the colour into fine lines



Liquid Eyeshadow

Long wear eyeshadow, very fresh when applied

PHASE	TRADE NAME	RAW MATERIAL	SUPPLIER	%
Α	Demineralized Water	Water	-	57.84
Α	Rhodicare® T	Xanthan Gum	Summit Cosmetics Europe	0.30
В	Phenoxyethanol	Phenoxyethanol	-	0.60
В	Hydrolite® 5 Green	Pentylene Glycol	Safic-Alcan	1.00
С	Demineralized Water	Water	-	30.00
С	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	4.00
D	Pearls	÷.	Maprecos	6.00
D	Pigments	•	Sensient	0.26

Liquid Eyeshadow





Process

- Solubilize ExpertGel® in water
- Prepare phase A, the gel of xanthan gum
- Add phase B to phase A
- Prepare a solution of ExpertGel® and add it to A+B
- Add D and mix until the blend is homogeneous

- Very fresh on application
- Leaves a thin, highly resistant film



Suncare New Generation

Highly sensorial sun care with very high protection

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
А	Amphisol® K	Potassium Cetyl Phosphate	DSM	0.75
Α	TEGO® Care PBS 6	Polyglyceryl-6 Stearate (and) Polyglyceryl-6 Behenate	Evonik	3.00
Α	Uvinul® T 150	Ethylhexyl Triazone	BASF	4.00
А	Parsol® EHS	Ethylhexyl Salicylate	DSM	5.00
А	Uvinul® A Plus Granular	Diethylamino Hydroxybenzoyl Hexyl Benzoate	BASF	5.00
А	Tinosorb® S	Bis-Ethylhexyloxypenol Methoxyphenyl Triazine	BASF	3.00
Α	Parsol® SLX	Polysilicone-15	IES Ingredients	3.00
А	DUB DIS	Diisopropyl Sebacate	Stéarinerie Dubois	13.00
Α	DUB DIPA	Diisopropyl Adipate	Stéarinerie Dubois	5.00
В	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	2.00
С	Demineralized Water	Water	-	47.55
С	Propanediol	Propanediol	-	5.00
С	Phenoxyethanol	Phenoxyethanol	-	0.90
С	Sensiva® SC 50	Ethylhexylglycerin	DKSH/Schülke & Mayr	0.10
D	Glycerin	Glycerin	-	2.00
D	Rhodicare® S	Xanthan Gum	Summit Cosmetics Europe	0.20
Е	Parfum Monoï	Fragrance	H. Reynaud & Fils	0.50

Suncare New Generation





Process

- Heat up A to 80°C under stirring
- Add ExpertGel® into A and mix well
- · Add C into the main container
- Prepare the premix D and add it to C while stirring
- Heat up C+D at 80°C under stirring
- Pour A+B into C+D under stirring with high shear
- Emulsify for 15 min
- Cool down to 30°C under stirring
- Add E and mix until the blend is homogeneous

- Boosted SPF
- Improved water resistance
- Flexible, protective thread that retains the sun filters in its network on top of the skin
- Very high SPF targeted



Self Resurfacing Sunscreen Cream

Highly sensorial sun care with very high protection

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Escalol™ 517	Butyl Methoxydibenzoylmethane	Ashland	3.00
Α	Parsol® 340	Octocrylene	DSM	8.00
Α	Parsol® EHS	Ethylhexyl Salicylate	DSM	5.00
Α	Parsol® HMS	Homosalate	DSM	10.00
Α	Amphisol® K	Potassium Cetyl Phosphate	DSM	0.75
А	Lanette® O Or	Cetearyl Alcohol	BASF	0.30
Α	Antaron™ V220	VP/Eicosene Copolymer	Ashland	1.00
Α	Cetiol® C5 C	Coco-Caprylate Caprate	BASF	2.50
Α	Cetiol® CC	Dicaprylyl Carbonate	BASF	3.00
Α	Pelmulen™ TR-2	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	Lubrizol	0.10
В	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	2.00
С	Demineralized Water	Water	¥	59.75
С	Glycerin	Glycerin	-	3.50
С	EDTA	Tetrasodium EDTA	-	0.10
С	Euxyl® PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	DKSH / Schülke & Mayr	0.90
D	Triethanolamine	Triethanolamine	-	0.10



Self Resurfacing Sunscreen Cream



Process

- Heat up A to 85°C under stirring
- Add ExpertGel® into A and mix well
- Heat up C at 80°C in the main container under stirring
- Poor A+B into C under stirring with high shear
- Neutralize with D while stirring with high shear
- Cool down to 30°C under stirring

- ExpertGel® optimises the performance of suncare products by boosting SPF, improving water resistance and creating a flexible, protective thread that retains the sun filters in its network
- Very high SPF50+ protection measured in vivo



Self Tanning Mousse

Densified mousse and stabilised DHA

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water	\\ <u>-</u>	69.70
Α	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	1.00
В	Glycerin	Glycerin	*	5.00
В	Propanediol	Propanediol	-	5.00
В	Sensiva® SC 50	Ethylhexylglycerin	DKSH/Schülke & Mayr	0.20
В	Phenoxyethanol	Phenoxyethanol	-	0.60
С	Oramix™ CG110	Caprylyl/Capryl Glucoside	Seppic	1.50
С	Plantacare® 2000 UP	Decyl Glucoside	BASF	1.50
С	Parfum Monoï Ensoleillé	Fragrance	Mane	0.50
D	Demineralized Water	Water	-	10.00
D	DHA	Dihydroxyacetone	+	5.00
Е	Citric acid (sol. 10%)	Water (and) Citric acid		1.20

Self Tanning Mousse





Process

- In the main beaker, introduce phase A and under stirring add phase B
- Add phase C, D and E under stirring

- Dense and generous foam
- Creates a film that enhances DHA efficiency
- Perfect compatibility with DHA
- Homogeneous application

Hair jelly



Memory shape gel

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
А	Demineralized Water	Water	-	10.00
А	Polymer AQ 38S	Diglycol/CHDM/Isophtalates/Copolymer	Eastman/Unipex	3.00
В	Demineralized water	Water		51.00
В	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	6.00
С	Diglycerin S	Diglycerin	-	5.00
С	Glycerin	Glycerin	-	24.00
С	Panthenol	Panthenol	Symrise	0.50
С	Symdiol® 68T	1,2-Hexanediol (and) Caprylyl Glycol (and) Tropolone	Symrise	0.40
С	Fragrance	Fragrance	-	0.10

Hair jelly





Process

- In a suitable premix container, prepare in advance the phase A at 80°C
- In the main blender, mix at 15-20°C the phase B
- Once the gel is clear, introduce in the main blender the phase A and homogenize
- Then introduce in the main blender the ingredients of the phase C

Benefits

Memory shape formula





A long-lasting perfumed body veil

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Alcohol Denat	Alcohol	4	55.00
А	Parfum Monoï Ensoleillé	Fragrance	Mane	3.00
В	Demineralized Water	Water	-	40.00
В	ExpertGel® EG412	Poloxamer 407 (and) PPG-12/SMDI Copolymer	PolymerExpert	2.00







Process

- Solubilize the fragrance in ethanol
- Solubilize ExpertGel® in water
- Add the phase B to the phase A and blend until it is homogeneous

- Long-lasting effect
- Top notes stay longer



Clear Perfumed Gel Lotus

A transparent gel with shape memory

PHASE	TRADE NAME	INCI NAME	SUPPLIER	%
Α	Demineralized Water	Water		30.00
Α	ExpertGel® EG312	Poloxamer 338 (and) PPG-51/SMDI Copolymer	PolymerExpert	3.00
В	Demineralized Water	Water	-	51.70
В	EDTA	Tetrasodium EDTA	-	0.10
В	Glycerin	Glycerin	-	3.50
С	Oramix™ CG110	Caprylyl/Capryl Glucoside	Seppic	5.00
С	Emulgin® CO 40	PEG-40 Hydrogenated Castor Oil	BASF	3.00
С	Parfum Fleur de Lotus	Fragrance	Mane	3.00
D	SymDiol® 68	1,2 Hexanediol (and) Caprylyl Glycol	Symrise	0.70







Process

- Prepare a solution of ExpertGel® in water
- Introduce the phase B into the main container and dissolve EDTA in water
- Premix the ingredients of the phase C
- Add C to B and mix until the blend is homogeneous
- Add A to B+C and mix until the blend is homogeneous

- Fragrance formulated without alcohol
- An oily gel structured with EstoGel® Green that does not drip into the packaging
- A new way to apply fragrance with a non-greasy, non-sticky formula



Notes	

Notes





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