

INAGEL green[®]

Natural Texturing Agent

GELLING
AND
THICKENING

SUSPENDING
AND
DISPERSING

EMULSIFYING
POWER

PATENTED
PREMIX



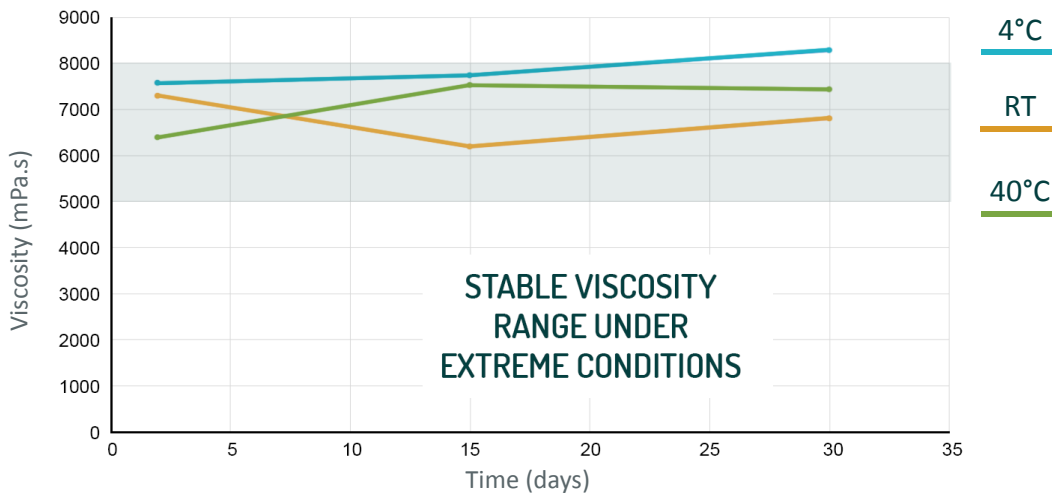
The patented premix INAGEL GREEN includes the highest purity of Konjac glucomannans with improved solubility, stability and functionality for cosmetic formulation. Amorphophallus KONJAC has long been used in China, Japan and South East Asia as a food source.

Hydrocolloidal polysaccharide composed of mannose and glucose units branched by β 1-4 glycosidic linkages. High molecular weight ranging from 200 000 to 2 000 000. Acetyl groups contribute to the solubility of the polymer. (They are present on average, at every 19 sugar residues.)



COSMOS
APPROVED

Stability at different temperatures

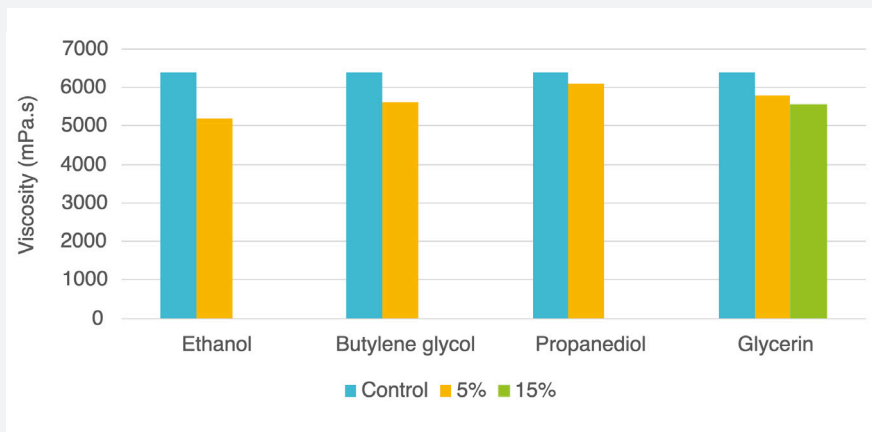


Inagel Green gels (1%) are stable at different temperatures.

*The viscosity was measured 48h after preparation with a Brookfield viscosimeter at 60 rpm, 1 min



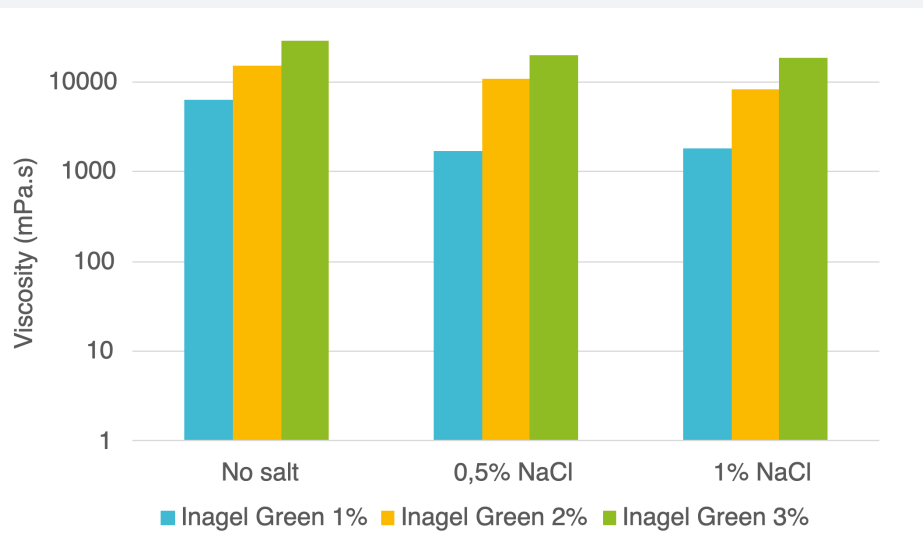
Compatibility with solvents



Viscosity of 1% Inagel Green gels in the presence of solvents compared with a control (no solvent)

*The viscosity was measured 48h after preparation with a Brookfield viscosimeter at 60 rpm, 1 min

Compatibility with NaCl



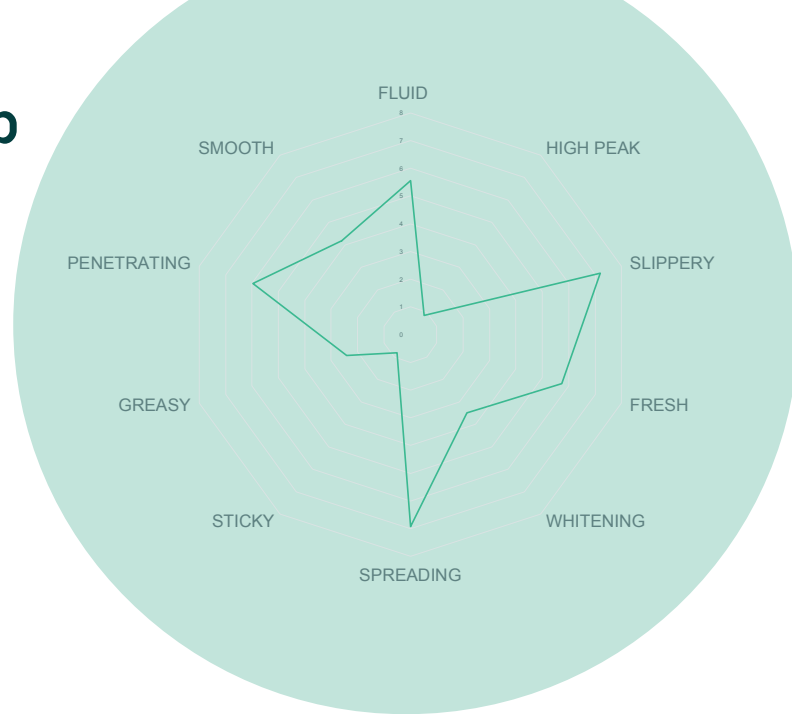
In formulations with salt, increasing the amount of Inagel Green allows to compensate the loss of viscosity and to stabilize the gel (no syneresis observed after 2 weeks)

*The viscosity was measured 48h after preparation with a Brookfield viscosimeter at 60 rpm, 1 min

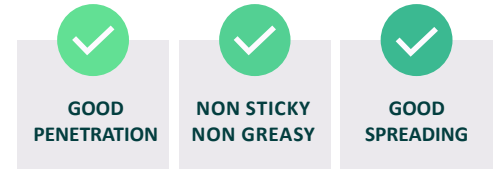
Pampering Hand Scrub

With less than ten ingredients, this gentle scrub will bring instant comfort to your hands. The film-forming effect will protect from dryness and external aggressions while the fine beads of glucomannan will delicately scrub and smooth the skin. Do not rinse and feel your hands softer than ever !

	NAME	PURPOSE	%
A	Sweet Almond Oil	Emollient	12
	Coco Caprylate	Emollient	8
	Glyceryl Stearate Citrate	Emulsifier	3
B	Water	Solvent	59,5
	Sodium Benzoate	Preservative	0,5
C	INAGEL GREEN	GELLINGAGENT	1
D	Glucomannan	Scrub	5
	Glycerin	Emollient	10
E	Evodia Rutaecarpa Extract	Active	1



*Sensory evaluation performed on a trained panel



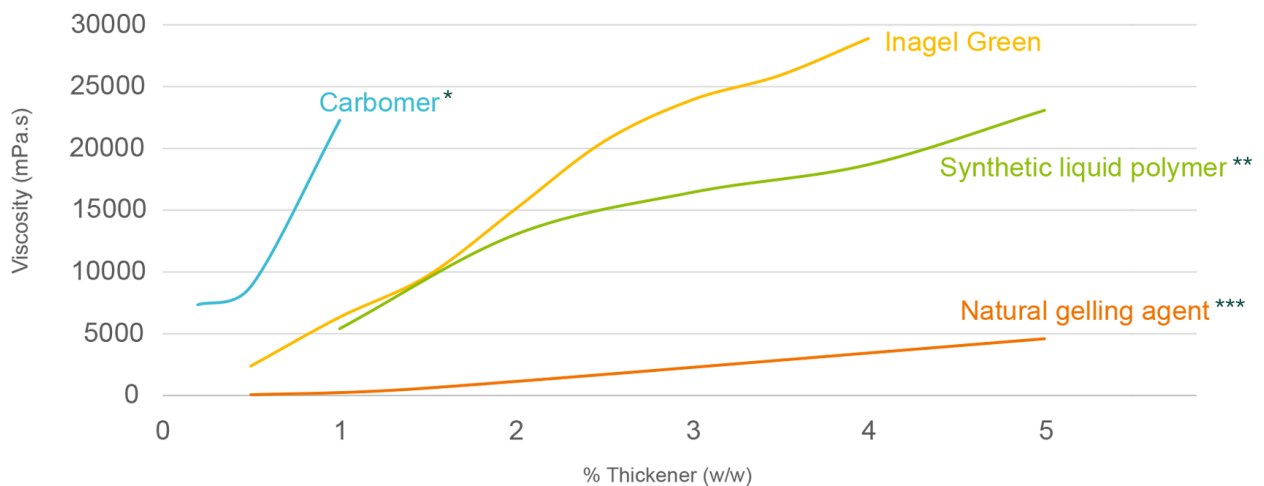
Process

Weight A and B separately, heat up to 70°C. Add B into A and stir for 15 minutes at 2000 rpm. Cool down to 50°C and add C, stir for 20 minutes. Cool down to RT, decrease speed to 1000 rpm. Add D and E and keep stirring for 10 more minutes.

Viscosity: 11 000 mPa.s | 48 Hours



Comparison of the thickening behaviour



** POLYACRYLAMIDE & C13-14 ISOPARAFFIN & LAURETH-7

*** XANTHAN GUM & LECITHIN & SCLEROTIUM GUM & PULLULAN

INAGEL green[®]

Natural Texturing Agent

GELLING
AND
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PREMIX



MULTIFUNCTIONAL

- Gelling and texturing
- Thickening and suspending
- Co-emulsifier and stabilizer

EASY TO USE

- Pre-dispersed liquid form
- Before or after emulsification
- No neutralization
- Cold/hot process

RESISTANT

- Suitable for acidic formula
- Good electrolytes tolerance
- Compatible with pigments and solvents
- Stable under temperature stress

NATURAL

- Traditional Japanese Food Ingredient
- ISO 16128 Natural-Derived Index 1

SENSORIAL

- Enhanced skin feel and penetration
- Synergetic effects of components

INCI

Glucomannan
& Polyglyceryl-4
Laurate
& Caprylic/Capric
triglyceride
& Xanthan Gum

Shelf-life

4 years

Use level

0.5-2%

pH range

4-7

Pack size

5 kg

*The information contained in this brochure is based on our current knowledge and should not be used to commercialize products to consumers.
The samples provided are only for experimental use and not for resale.*



COSMOS
APPROVED

IK INABATA

DEXTRIN PALMITATE - OGD P11

Natural oil gelling agent



COSMOS
APPROVED

IK INABATA

DEXTRIN PALMITATE - OGDPI1

Natural oil gelling agent

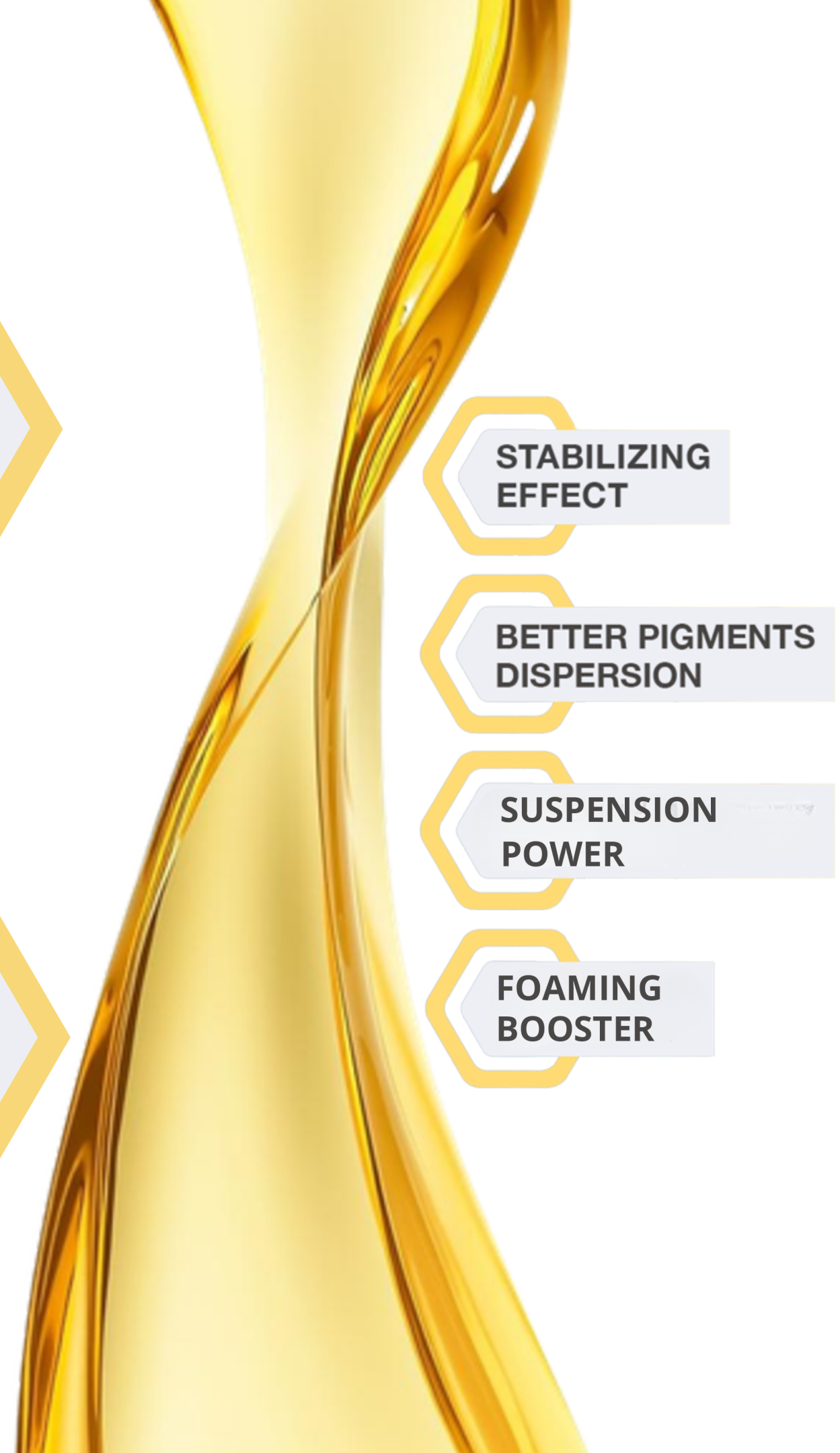
Ester obtained by reaction between **dextrin** (polysaccharide derived from starch) and **palmitic acid** (fatty acid of plant origin).

Oil gelling agent
Transforms liquid oils (vegetable, mineral, esters) into **solid** or **semi-solid textures** (balms, sticks)

Emulsifying agent
Stabilizes oils and foam in cosmetic formulas

Stabilization of pigments and particules
Prevents sedimentation and ensures **even distribution**

Thickener & texturizer
Improves the **consistency** and silky feel of products.



STABILIZING EFFECT

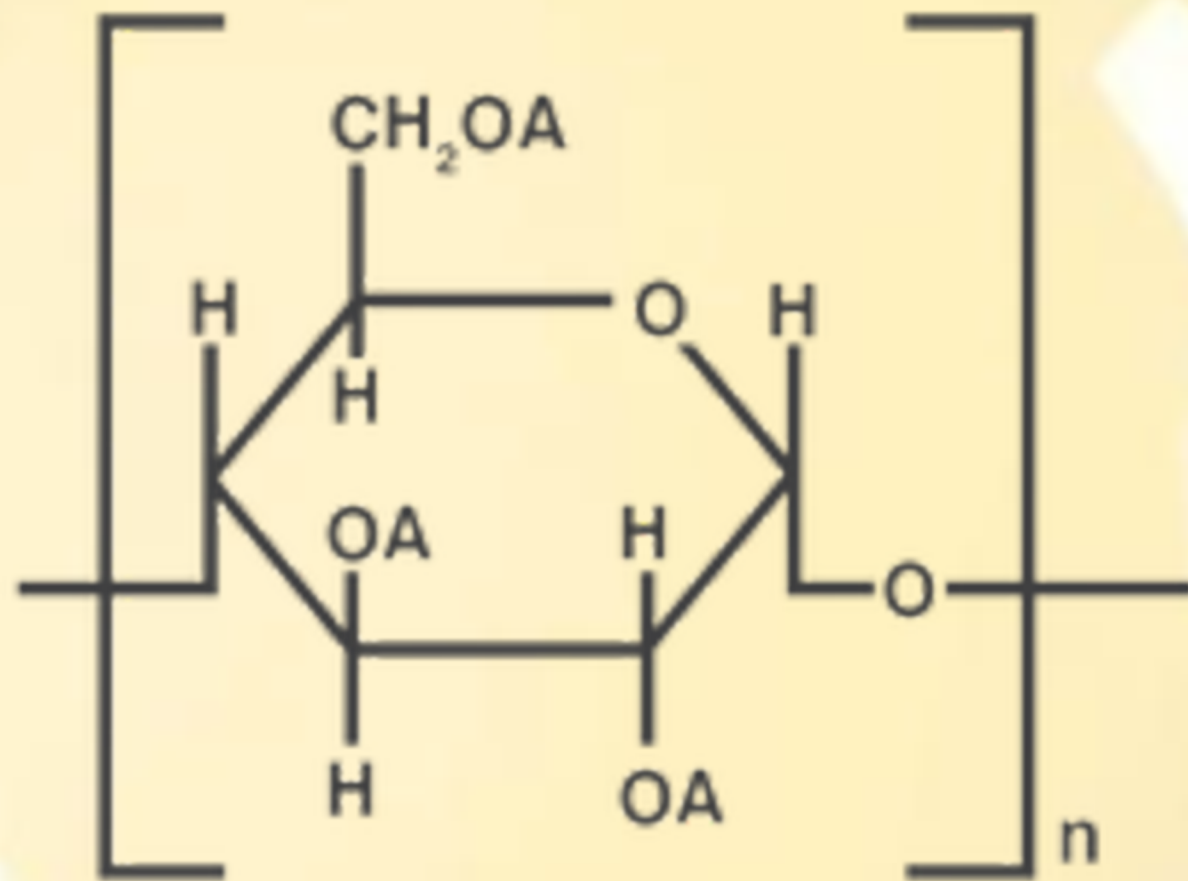
BETTER PIGMENTS DISPERSION

SUSPENSION POWER

FOAMING BOOSTER

DEXTRIN PALMITATE - OGDPI 1

Overview



A : palmitoyl group or H
n : degree of polymerisation

APPLICATION

- Oil based gel
- W/O emulsion
- Make up
- Skin care

HOW TO PROCESS

- Disperse dextrin palmitate in the oil phase.
- Heat the mixture above 80°C under agitation.
- Adjust the dispersion temperature depending on the oil blend.



When cooling avoid high-shear **agitation to prevent breaking the network structure.**

DEXTRIN PALMITATE - OGDPI1

Aspect

ASPECT OF THE 5% GEL



Avocado oil

Hazelnut oil

Argan oil

Sesame oil

Sweet almond oil

Sunflower oil

Rapseed oil

C15-19 Alkane

Dicaprylyl Ether

Caprylic Capryc Triglyceride

Parrafin oil

Coco-Caprylate

Rapseed oil

Rapseed oil

DEXTRIN PALMITATE - OGDPII

Aspect



Aspect of the gel with 1% OGDPII in SFO



Aspect of the gel with 2% OGDPII in SFO



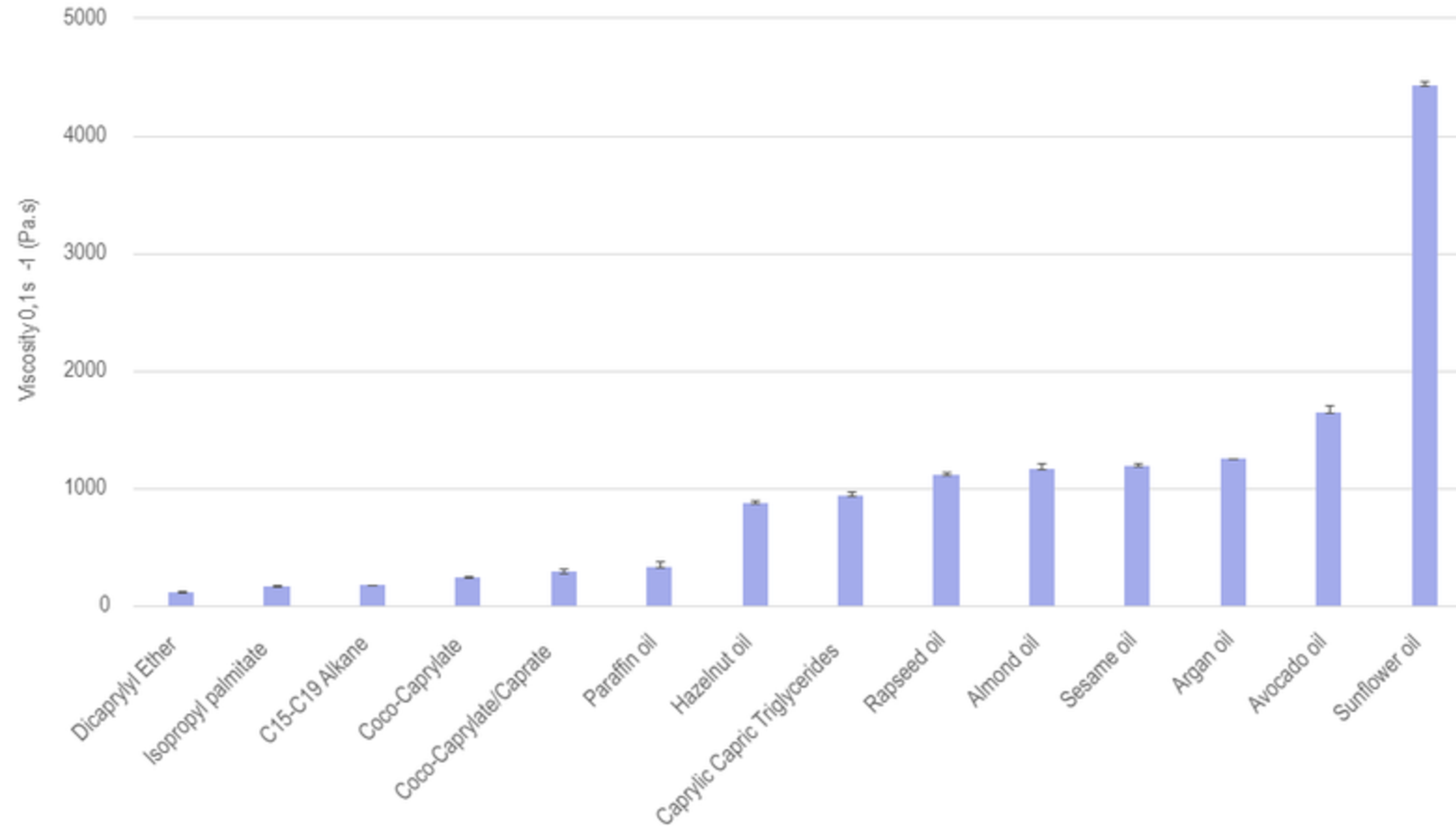
Aspect of the gel with 3% OGDPII in SFO



DEXTRIN PALMITATE - OGDPI 1

Performance

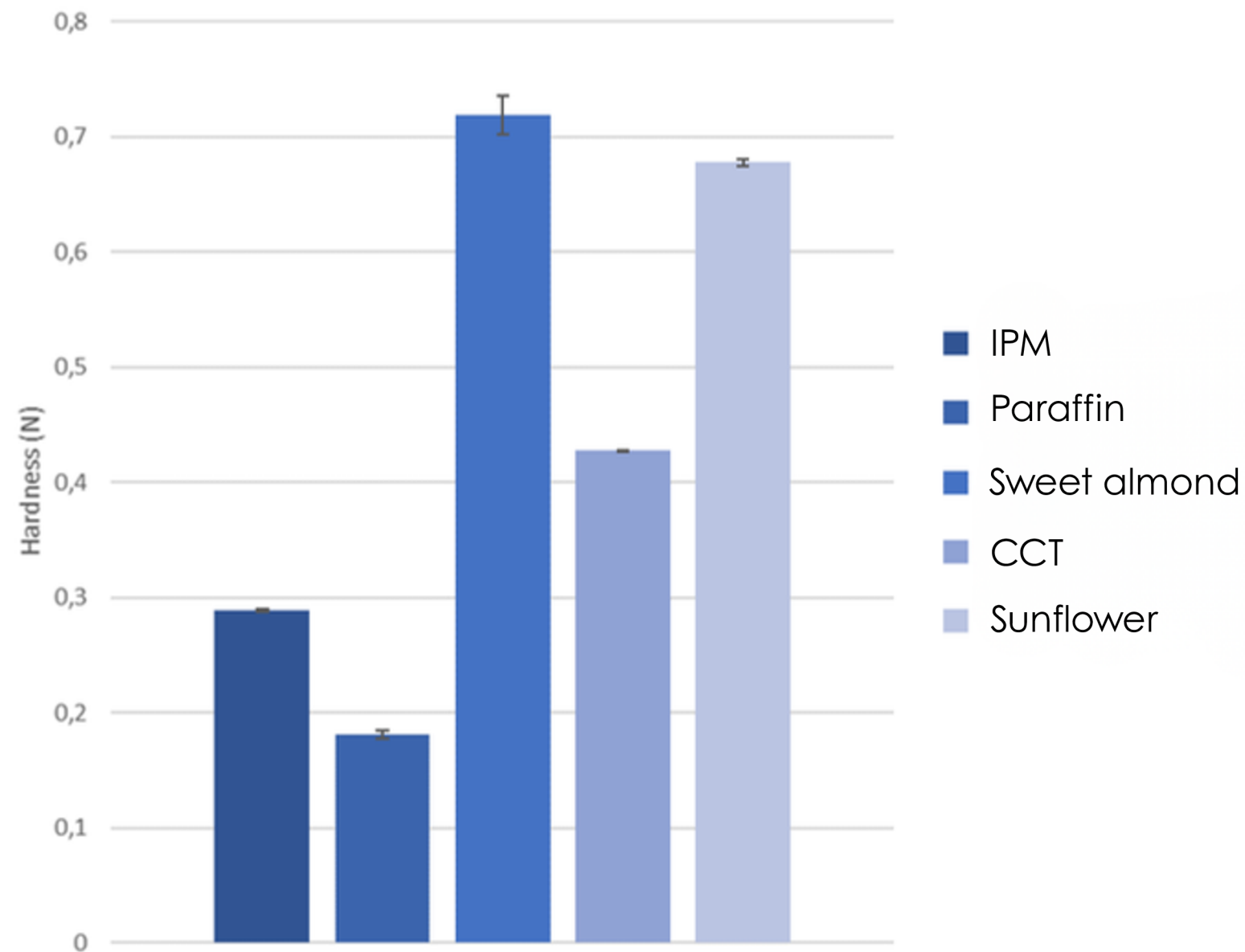
Ingredient	Temperature
C15-19 alkane	80°C
Isopropyl myristate	80°C
Paraffin oil	100°C
Caprylic/Capric triglycerides	110°C
Sunflower oil	120°C
Sweet almond oil	120°C



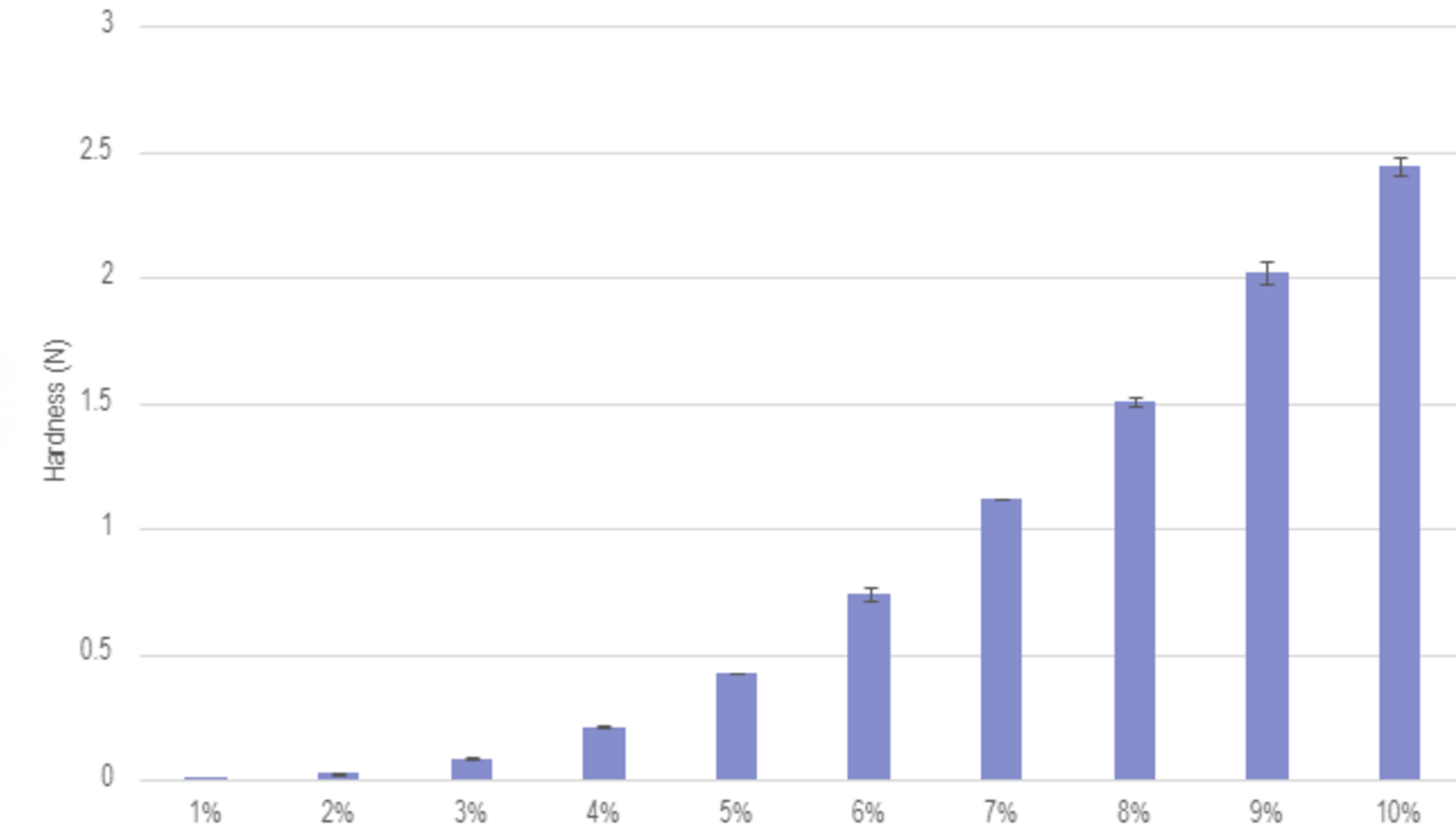
Viscosity - Variation depending on ingredients

DEXTRIN PALMITATE - OGDPII

Performance



Gel's hardness depending on ingredients



Gel's Harndess depending of the OGDPII concentration

DEXTRIN PALMITATE - OGD11

Formulation

SWEET ALMOND OIL MAKEUP
REMOVING OIL JELLY



Stabilization of dextrin palmitate in a formula with a high content of oil

Protocol - W/O gel :

- Heat A to 80°C
- Form B1, heat to 80°C under light stirring for 10 min
- Add B2, start stirring at 2500 rpm with a rotor stator.
- Add A in B and emulsion for 10 min
- Reduce the stirring to 500 rpm
- Let cool to 40°C and add C



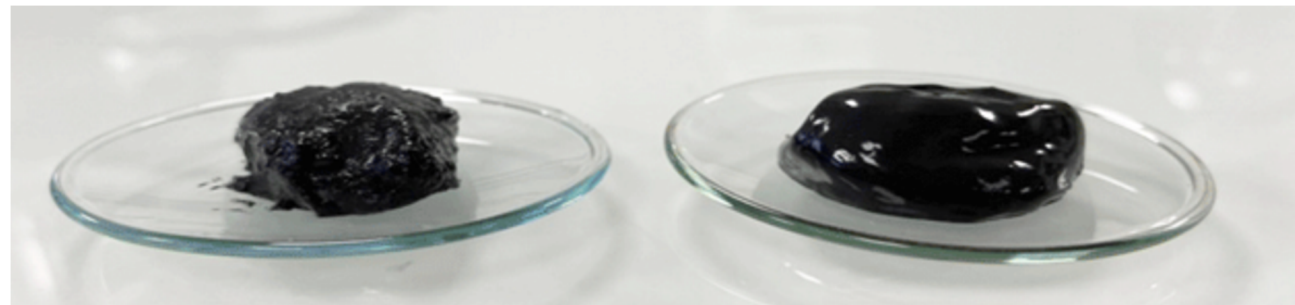
Phase	INCI	%
A	Aqua Glycerin	QS 8
B1 B B2	Sweet almond oil Dextrin Palmitate OGD - 11 Sucrose Laurate/palmitate	65 4,2 5
C	Tocophérol	0,5

DEXTRIN PALMITATE - OGDPI1

Formulation

MASCARA

ALLOWS BETTER
PIGMENTS
DISPERSION
AND SMOOTHER
FORMULA



Mascara without dextrin palmitate

Mascara with dextrin palmitate OGDPI-11

Protocol - W/O gel :

- Heat A and B separately to 75°C
- Once B is fully melted add C in B, 1000 rpm
- When B+C is homogeneous, add slowly A under high stirring 2500 rpm
- Cool to 50°C and add D
- Cool to room temperature under slight agitation - 200 rpm



Phase	INCI	%
A	Aqua Glycerin Acacia Senegal Gum & Xanthan Gum	QS 2 2,2
B	Stearic Acid & Palmitic Acid Candellila Cera Cera Alba Cereareth 20 Dextrin Palmitate OGDPI - 11	5 1,5 4,5 1,7 3
C	CI 77499	10
D	Phenoxyethanol Sodium Benzoate	1 0,5

DEXTRIN PALMITATE - OGDPI1

Natural oil gelling agent

GELLING - TEXTURING - SUSPENDING

INCI : Dextrin Palmitate

ISO 16128 : NATURAL DERIVED INDEX 1

ASPECT : WHITE TO BEIGE POWDER

SHELF - LIFE : 24 MONTHS

USE LEVEL : around 5%



**STABILIZING
EFFECT**

**BETTER PIGMENTS
DISPERSION**

**SUSPENSION
POWER**

**FOAMING
BOOSTER**