

Viscolam® AT 100 P

An easy way to new textures.

VISCOLAM® AT 100 P is a 3-in-1 rheology modifier: in one single step, it can thicken, stabilize and emulsify O/W emulsions. This multifunctional polymer develops fresh formulations that readily melt on the skin. Cream-gels have the advantage of having a pleasant light texture, suitable also for oily skin, as well as for hot and humid climates. A wide variety of textures can be achieved with VISCOLAM® AT, from extra-fluid, sprayable to thick textures.

VISCOLAM® AT 100 P is a ready-to-use liquid polymer produced by inverse emulsion polymerization. It comes as a pre-neutralised polymer, dispersed in an oily phase. The intrinsic morphology of the polymer resulting from this process is an important part of its final properties and gives it a unique, multifunctional character.

VISCOLAM® AT 100 P is based on the "Hydro Swelling Droplets" concept. When added to polar systems under stirring, the W/O emulsion instantly inverts to O/W and the polymer network expands in a few seconds thickening and stabilizing the formulation.

INCI name: Sodium Polyacryloyldimethyl Taurate, Hydrogenated Polydecene, Trideceth-10

Summary of benefits

- Ready-to-use: liquid and pre-neutralized
- Cold or hot processable;
- Applicative pH range: 3.0 – 11
- Effective with high amounts of oily phase
- Independent from fatty phase nature and polarity, broad oil range compatibility;
- Texture from lotions to thick creams
- Pleasant feeling of freshness and softness to the skin

Applications

VISCOLAM® AT is ideal for O/W emulsions, conferring a light and pleasant texture:

- face & body care: creams, butters, lotions
- suncare: sun tan and self tanning lotions (compatible with dihydroxyacetone)
- make-up: emulsions, cleansing milks & rinse-off cream cleansers
- haircare: masks and conditioners

VISCOLAM® AT 100 P is extremely versatile: it can efficiently create stable emulsions regardless of the chemical nature and polarity of the oil system used. VISCOLAM® AT 100 P is particularly effective at emulsifying high contents of silicone oils, being the perfect choice for hair care emulsions.

Being cold-processable, VISCOLAM® AT 100 P can work at low temperatures, hence being suitable for formulations with heat-labile ingredients.

VISCOLAM® AT 100 P builds a gel-structure network, able to stabilize mineral additives (talc, iron oxides, zinc, titanium, etc.), pigments and scrubbing agents.

VISCOLAM® AT 100 P is compatible with acid or alkaline pH and it tolerates the presence of solvents such as ethanol or acetone.

Formulation tips

Suggested inclusion levels: 1-4%.

Average use levels of around 2% (as supplied) is enough to generate stable emulsions; VISCOLAM® AT 100 P can also be used at lower levels (0.5 – 0.8%) as a coemulsifier. VISCOLAM® AT 100 P can be added at any step of the formulation process, both in hot and cold processes.

There are three main options for emulsions' formation:

1. Polymer addition into oily phase, prior to emulsification phase
 2. Creation of an aqueous gel, followed by addition of oily phase
 3. Polymer addition during emulsification phase
- VISCOLAM® AT 100 P can also be used to prepare anhydrous viscous gels, in solvents such as glycerine and propylene glycol.



Sugar Scrub – LAMCOS 142

Phase	Ingredient name	% w/w
A		
1	Glycerin	To 100
2	EUCAROL® B/M	5.0
3	Preservative	0.5
4	STEROL CC/595	5.0
B		
1	VISCOLAM® AT 100 P	2.2
C		
1	Parfum (Fragrance)	0.5
2	Sucrose (White Sugar)	20.0
3	Sucrose (Brown Sugar)	2.0

Manufacturing procedure:

Add ingredients of phase A in given order while stirring. Add B1 under vigorous stirring, until a smooth gel is formed. Add C1 under stirring, and carefully add C2 and C3; keep stirring until a homogeneous suspension is formed.

General characteristics:

Appearance: translucent emulsion with suspended sugar grains.

Melting Cream-Gel – LAMCOS 177

Phase	Ingredient name	% w/w
A		
1	Aqua (Water)	To 100
2	Glycerin	2.0
3	Propylene Glycol	4.0
B		
1	Isononyl Isononanoate	2.0
2	Butylene Glycol Dicaprylate/Dicaprate	1.2
3	Ethylhexyl Palmitate	6.0
C		
1	VISCOLAM® AT 100 P	1.5
D		
1	Preservative	q.s.
2	Parfum (Fragrance)	q.s.
3	Citric Acid, 10% soln.	To pH ~ 5.5

Manufacturing Procedure:

In the main vessel, add ingredients of phase A. In a separate vessel, mix ingredients of phase B. Add phase B to phase A under stirring; add C1 and homogenize to obtain a uniform emulsion. Add ingredients of phase D and adjust pH to ~5.5 with a citric acid solution.

General characteristics:

Appearance: white emulsion
pH: ~ 5.5
Viscosity (Brookfield RVT+Helipath, 10 rpm, 25°C, 30"): ~ 60000 mPa*s

For more information please contact:

Personal Care Headquarter | Via Marsala, 38/d | 21013 Gallarate (VA) | Italy
T + 39 0331 715 824 | cosmetics@lamberti.com
personalcare.lamberti.com

Replenishing Hair Conditioner – LAMCOS 160

Phase	Ingredient name	% w/w
A		
1	Aqua (Water)	to 100
2	ESAFLOR® EC 3	0.5
3	Citric Acid, 20% soln.	To pH ~ 5.5
B		
1	Cocos Nucifera (Coconut) Oil	4.0
2	Helianthus Annuus (Sunflower) Seed Oil	3.0
C		
1	VISCOLAM® AT 100 P	2.5
D		
1	Amodimethicone, Cetrimonium Chloride, Trideceth-12	2.0
E		
1	Preservative	1.0
2	Parfum (Fragrance)	0.2
3	Citric Acid, 20% soln.	To pH ~ 4.5

Manufacturing Procedure:

In the main vessel, add A2 into water while stirring; adjust pH to ~ 5.5, then stir for ~ 20 min to ensure the complete hydration of the polymer. Add the ingredient of phase B while stirring. Add VISCOLAM® AT 100 P and homogenize with a turbo-emulsifier until smooth. Add phase D and homogenize until smooth. Add the remaining ingredient under stirring and adjust pH around 4.5.

General characteristics:

Appearance: white cream
pH: ~ 4.5
Viscosity (Brookfield RVT, 20rpm, 25°C): ~ 10000 mPa*s

