

## THE BEAUTY OF CLEAN MULTIFUNCTIONALITY

### Versatile ingredients for tailored beauty needs



Clean beauty, sustainability and eco-conscious formulations are reshaping traditional product formats. Nowadays consumers expect beauty routines to balance sensory appeal, efficacy and respect for the environment. Bio-based cationic guar polymers can come to the rescue, offering sustainable and multifunctional solutions aligned with market expectations.

Today's consumers are more educated and aware about beauty needs, and their expectations are getting higher. Beauty routines are moving away from basics, leaving space for fun and experimentation or simply for a moment of relax and wellbeing. At the same time, modern users are more conscious of the impact that they could have on the environment, they have refined their knowledge of ingredients, as well as their ability to read labels and judge compositions. In few words, the personal care market is experiencing a relentless evolution. Clean beauty sets some basic rules that eco-conscious formulators cannot ignore. Sustainability has become a 'license to operate': balancing sensory appeal, efficacy and eco-social responsibility can definitely be a challenge. Multifunctional, effective and versatile ingredients help in targeting this goal. They can make formulators' task easier, bringing multiple benefits at the same time. Even better if they are natural, naturally derived and sustainable.

#### TAILORED MULTIFUNCTIONAL CONDITIONING AGENTS

Fully engaged into this important challenge, Lamberti Personal Care is committed to target consumers' requirements, supporting in the creation of the formulations of tomorrow. All new developments are designed to open new perspectives, with a strong commitment towards sustainability and environmental-friendly chemistry. With this clearly in mind, we have recently focused on expanding our range of sustainable, bio-based guar derivatives for hair and skin care. Leveraging our patented ESAFLOR® ZERO-X Technology, a water-smart manufacturing process, we developed two new products, to offer a complete portfolio of eco-friendly, effective and versatile cationic polymers:

- ESAFLOR® LIGHT delivers moderate conditioning, ideal for weightless fine hair
- ESAFLOR® PLUS ensures extreme conditioning, ideal for intensive caring and repairing formulas

The newest additions stand beside ESAFLOR® ZERO-X, suited for daily use or slightly damaged hair, and ESAFLOR® PFT, specifically developed for transparent and crystal clear formulations.

Lamberti's newly extended portfolio provides formulators a complete tool set of conditioning ingredients, enabling them to design innovative, top-of-the-line clean beauty products. ESAFLOR® LIGHT and ESAFLOR® PLUS (INCI: Guar Hydroxypropyltrimonium Chloride) add key elements to the range, to address multiple hair and skin needs, for a tailored end result with a multifunctional approach and a sustainable perspective.

#### APPLICATIONS AND BENEFITS

ESAFLOR® LIGHT and ESAFLOR® PLUS are not just simple conditioning agents, but truly multipurpose ingredients. Bio-based cationic guar polymers can be precious allies to develop optimized formulations with short INCI lists, as they deliver several benefits all at the same time:

- **Conditioning effect.** Thanks to their cationic character, they interact with keratin, leaving skin silky and soft, and hair easy to comb. They can also reduce the negative effects of harsh soaps and surfactants.
- **Foam boosting.** In combination with most commonly used surfactants, cationic guar polymers act as boosters, improving foaming and sensory appeal of rinse-off formulations.
- **Thickening properties.** Thanks to their polymeric nature, guar derivatives can help increasing viscosities of formulas.
- **Optimized actives delivery.** They can help enhancing delivery of water-insoluble ingredients onto hair and skin, with a co-deposition mechanism.

New ESAFLOR® LIGHT ensures lightweight hair softness and excellent cleansing appearance, being suitable for fine hair and baby formulations. It can also enhance skin feel during application, with a rich and creamy foam, and provide a soft skin after-feel.

ESAFLOR® PLUS, on the other hand, offers high conditioning properties and superior deposition ability, with no build-up, being the optimal choice for thick, damaged or textured hair.

Hence, the newly expanded ESAFLOR® portfolio offers formulators a selection of naturally derived ingredients, which fulfill many different functions for skin, hair and scalp needs. Appealing to consumers that are looking for clean beauty, ESAFLOR® cationic guar derivatives can therefore deliver valuable benefits in shampoos and rinses, conditioners and hair treatments, as well as in shower gels, body washes and baby formulations.

**Less water  
for a more  
conscious  
beauty.**



#### Eco-sustainability: every drop counts

ESAFLOR® LIGHT and ESAFLOR® PLUS are also aligned with consumers' eco-friendliness expectations. Natural guar gum, the starting point for our ESAFLOR® products, is extracted without chemicals and with no wastewater from the inner part of *Cyamopsis tetragonoloba* (guar) seeds. The guar plant itself is an abundant, renewable, annual legume that grows in arid Indian areas, requiring very little rainwater. Further down the line, ESAFLOR® ZERO-X Technology for the functionalization of the natural gum allows saving water, also avoiding the corresponding need of wastewater treatment, enabling a reduction of energy and industrial utilities at the same time\*.  
\*Compared to traditional manufacturing processes

#### Social sustainability: SHE DARES

Besides eco-friendliness of ESAFLOR® ZERO-X Technology, Lamberti pursues equally important social sustainability. Lamberti India, together with "People's Awareness Network Society" non-profit organization, is championing SHE DARES project for the empowerment of women in Rajasthan, through skills' training towards economic support and self-reliance. Rajasthan is the Indian region where we have been taking care of guar, the precious seed that allows us to transfer sustainable value to our customers. In this rural context, inequalities and educational shortage are a serious problem, especially for women. Therefore, we want to take care also of the people who contribute, with dedication, to the well-being of the guar plantations. Social sustainability could be often overlooked, but equal opportunities, freedom and self-awareness make people positive promoters of change.

#### EXTRA CARE SHAMPOO BAR LAMCOS 218

Phase	Ingredient Name	% w/w
A1	Sodium Cocoyl Isethionate (100% a.m.)	30.0
A2	Caprylic/Capric Triglycerides	5.0
A3	Cocos Nucifera (Coconut) Oil	4.0
A4	<b>EUCAROL® AGE C50 MB</b>	5.0
A5	Sodium Lauroyl Sarcosinate (100% a.m.)	30.0
A6	Cetearyl Alcohol	9.5
A7	Cocamidopropyl Betaine (30% a.m.)	9.1
A8	Tocopherol, Heliantus Annuus (Sunflower) Seed Oil	0.1
B1	Aqua (Water)	2.0
B2	Glycerin	2.0
B3	Sodium Benzoate	0.5
B4	<b>ESAFLOR® PLUS</b>	0.3
B5	Citric Acid, 50% soln.	2.0
C1	Parfum (Fragrance)	q.s.

**General Characteristics** - Appearance: off-white solid bar

#### CREAMY SOFT BODY WASH LAMCOS 219

Phase	Ingredient Name	% w/w
A1	Aqua (Water)	To 100
A2	<b>ESAFLOR® LIGHT</b>	0.2
A3	Citric Acid	To pH 5.5
A4	Lauryl Glucoside (50% a.m.)	10.4
A5	Glycol Distearate	0.5
A6	<b>ALPICARE GL 612</b>	8.7
A7	<b>EUCAROL® AGE/EC MB</b>	4.7
A8	Preservatives	q.s.
A9	Parfum (Fragrance)	q.s.
A10	Citric Acid, 20% soln.	To pH 5.0

**General Characteristics** - Appearance: pearlized viscous liquid;  
Viscosity (Brookfield RVT, 25°C, 20 rpm): ~ 1500 mPa.s