PLATFORM SALKIER, SIMPLER, GREENER,



INNOVATION FOR A GREENER WORLD





NATURAL ORIGIN 100%

CARBOGREEN FOR THE NEW GENERATION OF COSMETICS

Carbogreen platform products form polymer networks that retain large amounts of water. This increases the viscosity of cosmetic formulas, creating a unique and pleasant texture.

A NEW GENERATION OF TEXTURIZERS OF BOTANICAL ORIGIN THAT OFFER AN EXCELLENT SENSORIAL EXPERIENCE ON THE SKIN AND HAIR

Its products are quickly absorbed, spread easily, and form hydrogels with a unique texture. Each Carbogreen is a careful combination of natural polyssaccharides of botanical origin, such as gums, starches, and mucilages, and can be used alone or in different combinations. Its exclusive technology uses an innovative mixing process to form Interpenetrating and Semilnterpenetrating Polymer Networks, responsible for their special properties and attributes.

MAIN BENEFITS

Carbogreen Platform products are made from materials of 100% botanical origin.

They are completely biodegradable. They are environmentally safe.

Carbogreen Platform products are Global Compliant.

They are simple to use.
Simple stirrers are
sufficient for dispersion.

CARBOGREEN | PROPERTIES

GENERAL

- Improve the sensory profile of the formula
- Allows the preparation of emulsions with excellent appearance

SUSTAINABILITY

- Cosmos
- Biodegradable
- Vegan

PHYSICAL CHEMISTRY

- White powder
- Preservative-free
- Water dispersible
- Opalescent appearance when dispersed in water

SENSORY

- Excellent spreadability
- Adds texture
- Low tack on the skin



 IPN and Semi-IPN mechanism of action

CARBOGREEN | COMPARATIVO

DESCRIPTION		INCI	COSMOS APPROVED
QB	Carbogreen QB does not cause build-up, reduces drying time, and does not weigh hair down. In skincare products. Provides a pleasant, dry touch.	Zea Mays (Corn) Starch (and) Caesalpinia Spinosa Gum (and) Algin	✓
EI	Carbogreen EI is soft to the touch and quickly absorbed into the skin. It is ideal for light emulsions and facial skin care applications. Velvety touch.	Oryza Sativa Rice Starch (and) Cyamopsis Tetragonoloba (Guar) Gum (and) Algin	✓
EA	Carbogreen EA provides a rich and nutritious sensation and has good spreadability. It is ideal for skin care applications for the body, with a more excellent sense of presence on the skin.	Zea Mays (Corn) Starch (and) Cyamopsis Tetrago- noloba (Guar) Gum (and) Sodium Carrageena	✓
EO	Carbogreen EO has the highest suspension power and is the most viscous on the platform. In emulsions, it can function as a combability booster in hair applications, giving greater gliding power.	Oryza Sativa Rice Starch (and) Tapioca Starch (and) Cyamopsis Tetragonoloba (Guar) Gum (and) Algin	✓

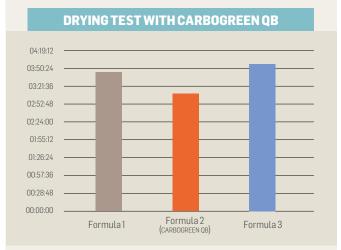
CARBOGREEN | FORMULATION + TESTS

HANDLING INSTRUCTIONS

Carbogreen requires heating from 80 °C to 95 °C.

- Add water at room temperature to a container with good agitation (500 to 800 rpm) using a propeller (propeller, disperser, or turbine). The stirring speed may vary depending on the propeller type or geometry and the mixing tank's volume.
- Add Carbogreen slowly while stirring. Then start heating to the desired temperature (between 80 °C and 95 °C) maintaining stirring and heating for 20 minutes.
- Mix the remaining formula ingredients at the recommended temperature.

TIP: If the formula contains other ingredients in the aqueous phase, such as glycols, add them before dispersing Carbogreen.



According to the results obtained, it can be concluded that the leave-on formula 2 with 2% **Carbogreen QB had the shortest drying time** (hot air) of the hair when compared to the leave-on formulas 1 and 3.

- 10% reduction in drying time when compared to leave-on in Formula 1.
- 13.5% reduction in drying time when compared to leave-on in Formula 3.

USAGE LEVELS			
	EMULSIONS		
CARBOGREEN QB	0.8 to 3.0		
CARBOGREEN EI	1.5 to 3.0		
CARBOGREEN EA	1.0 to 2.0		
CARBOGREEN EO	1.0 to 2.0		

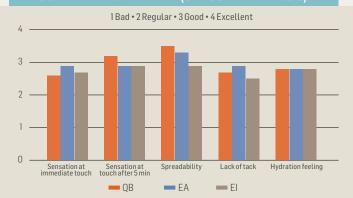


In tests carried out with volunteers, 100% of participants preferred the mask-treated half-head using Carbogreen EO. The average performance of the mask with Carbogreen EO was superior to that of PEG 90M in all questions asked.

PEG 90M

CARBOGREEN EO

COMPARATIVE PANEL (SENSORY ANALYSIS)



Tests were conducted with ten trained panelists using body cream with Carbogreen 3%, propylene glycol 2%, and water. 40% of the formulas were applied to 6 cm² of the forearm region.



CARBOGREEN
PLATFORM
PRODUCTS
IMPROVE THE
SENSORIAL AND
VISUAL ASPECT
OF FORMULAS.





FAO

What is the recommended pH to work with Carbogreen? In emulsions we can use a pH of around 4.0 to 6.5.

Is Carbogreen biodegradable / environmentally friendly?

Yes, in addition to being sustainably sourced, Carbogreen is considered 100% biodegradable after 28 days.

Does Carbogreen have any odor?

Carbogreen has a mild, characteristic starch odor. You don't need to add large amounts of fragrance to cover it.

Does Carbogreen require heating?

Yes, heating is necessary for the starch present in Carbogreen to reach the desired viscosity.

Can Carbogreen be used in cationic emulsions?

Yes, but you need to take some care. All Carbogreens have an anionic charge, which may cause incompatibility with cationic surfactants. To avoid this problem, it is recommended to use Carbogreen in cream formulas. Additionally, it is possible to add non-ionic agents such as Ceteareth-20, Glycerin Monostearate, and others to help stabilize the emulsion.

Is Carbogreen compatible with high perfume concentrations?

Emulsions are more likely to incorporate high concentrations of fragrance. However, the ideal is to carry out specific tests for each fragrance.

Carbogreen incompatible with other raw materials?

Carbogreen EA is incompatible with potassium salts.





