

# ASSESSA

INNOVATION FOR A GREENER WORLD



PLATFORM

# CARBOGREEN

SILKIER. SIMPLER. GREENER.



# QB

COMPATIBLE WITH QUATERNARY AMMONIUM SALTS, PREVENTS BUILD-UP AND REDUCES HAIR DRYING TIME



**CARBOGREEN PLATFORM**  
THE NEW GENERATION OF COSMETICS

The products of Carbogreen Platform form stable polymeric structures capable of retaining large quantities of water that increase viscosity of cosmetic formulas with a unique texture. This exclusive technological platform developed by ASSESSA, allows the formation of Interpenetrating Polymer Networks (Interpenetrating Polymer Networks - IPN) using polysaccharides of botanical origin.

**CARBOGREEN QB** can be used in hair and skin care products. It is compatible with quaternary ammonium salts, prevents build-up and reduces hair drying time. In skin products, it adds texture and moisturizes with excellent spreadability. It gives a pleasant, dry and velvety touch to the skin.

## MAIN BENEFITS

- Carbogreen range is made of 100% botanical sources and is fully biodegradable.
- Does NOT need neutralizers.
- Meets international CHINA and REACH standards.
- It is very simple to use. It does not require expensive high-shear stirrers and does not form lumps in the solution.
- Is NOT a source of hidden pollution.

**Carbogreen is a texturizer with coemulsifying properties that presents unique sensory in the skin and hair, with fast drying, film formation and excellent spreadability.**

## PROPERTIES

### GENERAL

- Improves formula stability
- Improves the sensory and the visual aspect of the formula
- Versatile for different applications and cosmetic formulas.

### PHYSICAL-CHEMICAL

- White powder
- Preservative free
- Water-soluble
- Opalescent appearance when dispersed in water
- Natural co-emulsifier

### SENSORY

- Natural sensory agent
- Great spreadability
- Fast absorption
- Dry touch (reduces the greasy feel in oily skin)
- Film-formation agent

### SUSTAINABILITY

- Cosmos Certified
- Biodegradable
- Vegan

### TECHNOLOGY

- Mechanism of action IPN and SIPN

# PLATFORM CARBOGREEN

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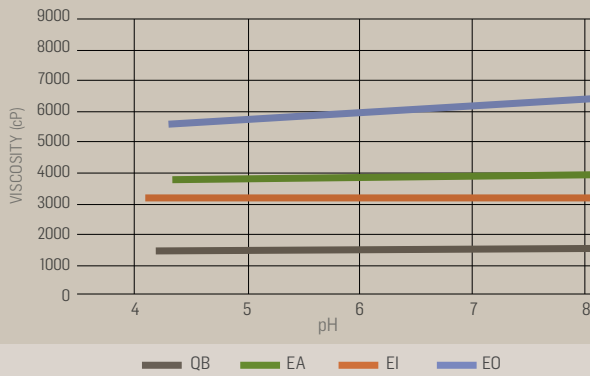
**CARBOGREEN QB IS 100% NATURAL AND DOESN'T REQUIRE ANY SYNTHETIC CO-INGREDIENT SUCH AS ALKALIS OR ELECTROLYTES**

**INCI NAME**  
Zea Mays (Corn) Starch  
(and) Caesalpinia Spinosa  
Gum (and) Algin

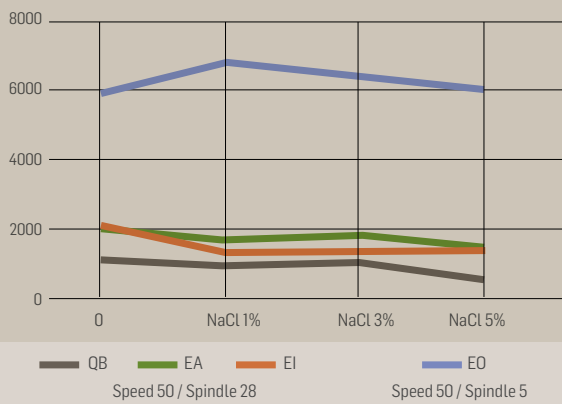
**CARBOGREEN WAS CONSIDERED 100% BIODEGRADABLE AFTER 28 DAYS**

## COMPARATIVE TESTS

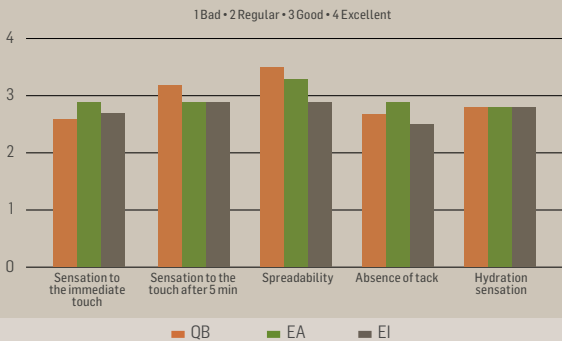
### VISCOSITY x pH



### STABILITY IN THE PRESENCE OF ELECTROLYTES



### COMPARATIVE PANEL (SENSORY ANALYSIS)



## FORMULATION

### HOT PROCESS

	VISCOSITY (cPs)*		
	PROCESS AT 40°C	PROCESS AT 60°C	PROCESS AT 80°C
<b>QB</b> (3% solution in water)	450	900	1750
<b>EO+QB</b> (1%+2% solution in water)	1550	1950	3400

(\* Brookfield • Spindle 28 • Speed 50 RPM)

### INSTRUCTIONS

Carbogreen requires heating from 40°C to 80°C. The viscosity of the final product is directly proportional to the temperature.

1. Add water at room temperature in a container with good stirring (500 to 800 rpm) using propeller (helix, dissolver or turbine). Different stirring speeds may be needed, depending on the propeller type and container volume or geometry.
2. Add slowly, dispersing Carbogreen with stirring.
3. After adding Carbogreen, start heating until the desired final temperature (between 40°C and 80°C) while stirring.
4. If the formula has other ingredients in the water phase, like glycols, add them before the dispersion of Carbogreen.
5. Heat the final solution to a temperature between 40°C and 80°C (5 to 10 min).
6. Allow cooling.
7. Mix the remaining ingredients of the formula at the recommended temperature.

### USAGE LEVELS

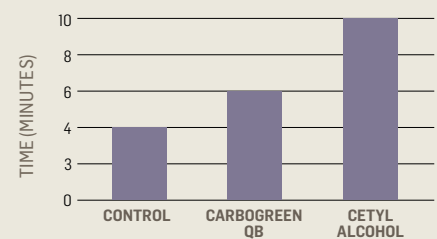
PRODUCT	(%)
<b>EMULSIONS</b>	<b>0.8 to 3.0</b>
<b>CATIONICS EMULSIONS</b>	<b>0.8 to 3.0</b>

### USAGE LEVELS IN ASSOCIATION

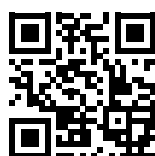
ASSOCIATION	SERUM / HIDROGEL	SURFACTANTS (MAX 15%)*
<b>EO+QB</b>	<b>1.0 % + 2.0 %</b>	<b>1.0 % + 2.0 %</b>

\* Non-ionic surfactants have excellent foam, creaminess and silky sensory properties. Anionic surfactants have more astringent foam. In both cases the maximum surfactant limit is 15%.

### REDUCTION OF HAIR DRYING TIME



The formulation with CARBOGREEN QB reduces hair drying time.



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[www.assessa.com.br](http://www.assessa.com.br)

**ASSESSA**  
INOVAÇÃO PARA UM MUNDO MAIS VERDE