

## **CARRAGEENANS E407**

Extracted from the seaweed carrageens, highly purified and homogenised.

### **GENERAL OVERVIEW**

#### **Composition and labelling**

Gelling agent : carrageenan (E407), sucrose added for standardisation, disodium phosphate (E339ii) added to facilitate storage.

#### **Description**

White to creamy white powder, without any smell, with a slight salted taste.

The molecule contains mainly potassium, sodium, calcium and magnesium salts, as well as sulfated carbohydrates that break after hydrolysis into galactose and 3,6 anhydrogalactose.

#### **Origin**

Extracted from red seaweed from the Rhodophyceae type by aqueous extraction. No other solvents should be used for precipitation others than methanol, ethanol or isopropanol.

### **APPLICATIONS**

| <b>APPLICATIONS</b>   | <b>Authorised dosage</b> |
|---|--------------------------|
| <b>Foodstuffs in general, excepted :</b><br>Non processed foods, honey, non emulsified oils and fats from vegetable or animal origins, butter, milk (wholemilk, skimmed and partially skimmed), dairy cream pasteurised and/or sterilised (wholefat or reduced fat - included UHT process), fermented dairy products using living ferments, non flavoured natural mineral water, bottled drinkable water, coffee and coffee extracts, non flavoured tea in leaves, sugars, dry pasta, natural and non flavoured buttermilk. | Quantum Satis            |

#### **Effect**

Highly reactive with milk : reacts strongly with milk proteins and with various salts, whatever the origins of the milks are.

Gelifying agent for puddings (gives a smooth and soft texture), creams. Recommended for industrial dairy desserts, specialities and fillings used hot.

Effect of acidity: puddings reach their optimal quality at pH values between 6,60 and 6,70.

#### **Instructions of use / dosage**

Pudding mix, industrial desserts.

For a pudding made with warm milk, the recommended dosage is between 1,6 to 1,8 G/KG of the end product weight.

#### **Properties**

Anti foaming agent and suspension aid.

May be used with other stabilisers to modify texture : synergies with locust bean gum : holds the texture better, avoiding water swelling (syneresis)

Stands sterilisation and freezing processes. Cooling is not necessary to start the gelifying process.

Good dispersion in cold milk. Improves the liberation of top flavour notes in mouth.

Gives nice smooth aspects and mouthfeeling. The gel melts nicely in mouth.

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**Examples of recipes**

|                         |   |                    |
|-------------------------|---|--------------------|
|                         | Vanilla, coffee or other flavoured puddings | Chocolate pudding  |
| Carrageenans - E407     | 0,25 to 0,30 %                              | 0,30 to 0,35 %     |
| Maize starch            | 0,0 to 1,6 %                                | 0,0 to 0,8 %       |
| Salt (Na Cl)            | 0,05 to 0,08 %                              | 0,05 to 0,08 %     |
| Sugar                   | 6,0 to 12,0 %                               | 6,0 to 12,0 %      |
| Cocoa powder            |   | 2 to 3 %           |
| Colour agents, flavours | According to needs                          | According to needs |
| Milk                    | Up to 100 %                                 | Up to 100 %        |

It is recommended to increase calcium content in a chocolate pudding recipe.

**SPECIFICATION**

**Physical**

|  |             |
|--|-------------|
| Particle size : through a standard US sieve #60 (250µ) | 95% min.    |
| Moisture   | 10 % max.   |
| Chlorides (KCl)  | 20 % max.   |
| Milk gel strength                                      | 70 – 100 g  |
| Powder color   | 84 L min.   |
| Total Heavy metals                                     | 20 ppm max. |
| Lead (Pb)  | 5 ppm max.  |
| Arsenic (As)   | 2 ppm max.  |
| Mercury (Hg)   | 1 ppm max.  |
| Cadmium (Cd)   | 2 ppm max.  |

**Microbial**

|                   |              |
|-------------------|--------------|
| Total plate count | ≤ 2500 cfu/g |
| Yeasts and moulds | ≤ 100 cfu/g  |
| E. coli / 10g     | Not detected |
| Salmonella / 10g  | Not detected |

**PACKAGING / STORAGE**

Packaging : 1 KG or 150 G net weight plastic tin - bag of 25 KG net weight  
Storage conditions Keep away from light and humidity  
Shelf life : 2 years minimum in its original and unopened packaging

**ARTICLE CODE**

1Kg ⇒ 310A - 150g⇒ 10048 - 25Kg ⇒ 311K

This specification is correct at the time of issue, but may be subject to alteration. The information herein is to our best knowledge true and accurate, but all recommendation or suggestions are made without guarantee.

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