

# TECHNICAL DATA SHEET

## ***K-CARRAGEENAN***



*We provide customized application solutions*

### **DESCRIPTION:**

Derived from red edible seaweed, Kappa Carrageenan is widely used in the food industry, for their gelling, thickening, and stabilizing properties. Their main application is in dairy and meat products, due to their strong binding to food proteins.

### **ORIGIN:**

China

### **PROPERTIES:**

Kappa Carrageenan = Firm Gel

Kappa-carrageenan yields a strong gel often described as firm and brittle in the presence of potassium ions, and may have syneresis. Kappa needs to be solubilized in hot water, but the sodium salts of kappa-carrageenan can be soluble in cold water. The resulting gels are not freeze-thaw stable.

### **SENSORY CHARACTERISTICS:**

It is a fine granulometry powder with a slightly off white color and neutral odor and taste.

### **CHEMICAL AND PHYSICAL CHARACTERISTICS:**

|                                       | <b>Kappa Refined</b> | <b>Kappa Semi-Refined</b> |
|---------------------------------------|----------------------|---------------------------|
| Viscosity(1.5% 75°C):                 | ≥ 5 mPa.s            | ≥ 5 mPa.s                 |
| Gel Strength:<br>(1.5%+0.2% KCL 20°C) | ≥1,300 g/cm2         | ≥ 450                     |
| Moisture(105°C):                      | ≤12%                 | ≤12%                      |
| Total Ash (550°C):                    | 15-40%               | 15-40%                    |
| pH (1%):                              | 8-11                 | 8-11                      |
| Sulphates:                            | 15-40%               | 15-40%                    |
| Acid Insoluble Ash:                   | ≤ 1%                 | ≤ 1%                      |
| Acid Insoluble Matter:                | ≤2%                  | ≤15%                      |
| Lead (Pb):                            | ≤5 ppm               | ≤5 ppm                    |
| Arsenic (As):                         | ≤3 ppm               | ≤3 ppm                    |
| Mercury (Hg):                         | ≤1 ppm               | ≤1 ppm                    |
| Cadmium (Cd):                         | ≤2 ppm               | ≤2 ppm                    |

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### **MICROBIOLOGICAL CHARACTERISTICS:**

|                    |                 |
|--------------------|-----------------|
| Total Plate Count: | Max 5,000 CFU/g |
| Yeast and Moulds:  | Max 300 CFU/g   |
| E.Coli:            | Absent in 5g    |
| Salmonella:        | Absent in 10g   |

### **TYPICAL APPLICATIONS:**

**Processed Meat:** substitutes fat and serves as meat extender and binder; enhances juiciness; increase yield; prevents fat separation;

**Processed Poultry:** controls dehydration while frozen; enhances juiciness and increases yield;

**Milk/Chocolate Milk Drink/Juice:** stabilizes and improves viscosity;

**Ice Cream:** prevents large ice crystal formation; enhances excellent flavor release;

**Flan/Dessert Gel/Confectionery:** serves as gelling agent; enhances flavor release and excellent mouthfeel;

**Bread/ Noodle/Pasta:** increases yield and improves texture and mouthfeel;

**Cakes/Pastries:** substitutes butter and improves texture and mouthfeel

**Sauce/Salad Dressing:** thickens and improves viscosity;

**Beer/Wine/Vinegar:** accelerates and improves clarity.

### **GMO DECLARATION:**

Carrageenan does not contain genetically modified organisms and is not produced using raw materials of a genetically modified origin. At no stage during production does the product come into contact with genetically modified organisms.

### **STORAGE CONDITIONS:**

Store away from heat and moisture, preferably at a cool and dry place. The product, when stored in these conditions and in its original unopened packaging, will maintain its initial properties for 24 months.

### **PACKAGING:**

25kg woven or kraft bag with polyethylene inner bag

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