VIDOGEL MS

(native guar gum, k-Carrageenan and native tara gum)

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Raw materials

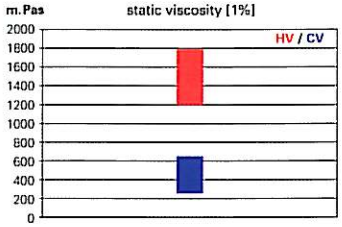
VIDOGEL MS is a cost-optimised mixture of native guar gum E 412, semi-refined k-Carrageenan E 407a and native tara gum E417.

- Guar gum is extracted from the endosperm of the "Cyamopsis tetragonoloba L." bush. Unlike locust bean and tara gum, this is cultivated rurally. The active chain-shaped hydrocolloidal molecules belong to the Galactomannan group. Origin: India, Pakistan.
- Semi-refined k-Carrageenan is an extract of Eucheuma red algae (PES: Processed Euchema Seaweed). The active chain chain-shaped hydrocolloidal molecules consist of sulphated and non-sulphated 3.6 anhydro-galactose. Origin: South-East Asia.
- Tara gum is extracted from the endosperm of the seeds of the wild shrub Caesalpinia spinosa L. Through the use of very finely ground, containing black specks powder, VIDOGEL MS 50 has a light brown colour, which is the reason why its use is limited to meat or meat-like products. The active chain-shaped hydrocolloidal molecules belong to the group of the Galactomannans. Tara gum has been approved for use in the EU since 1995. Origin: Peru.

Production

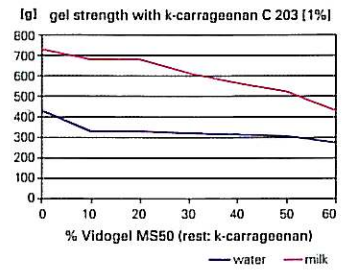
Guar and tara gum: Separation of the endosperms, milling, sifting, standardisation, mixing.
Semi-refined k-Carrageenan: Hot water extraction, precipitation, drying, mixing.

Characteristics



Viscosity

VIDOGEL MS already forms a sufficient initial viscosity during chopping or tumbling and thereby helps in the processing (filling of the sausage preparation, adhesion of the meat components). The desired final consistency (viscosity, gelling) is only completely achieved after the heating step and subsequent cooling.



Gelling strength

In a medium containing protein (such as meat or milk), VIDOGEL MS demonstrates a considerably higher gelling strength than in an aqueous solution.

With the addition of VIDOGEL MS to k-Carrageenan, the gelling strength initially only reduces insignificantly. VIDOGEL MS is a compound optimised for gelling strength and viscosity, which has a considerably improved price-performance ratio compared to pure semi-refined Carrageenan.

APPLICATION AREAS

- Dairy and dessert products
- Fruit products and soft drinks
- Culinary products
- Meat products
- Organic products
- Dietary and pharmaceutical products
- Your product

Areas of use

VIDOGEL MS is designed for meat products with reduced meat-protein and meat-like products (on a soya, cereal or vegetable basis).

Characteristics and benefits

- Compound optimised for viscosity and gelling strength for meat applications with reduced share of meat proportions and vegetable meat imitations
- Optimised price-performance ratio through optimal exploitation of synergies
- Synergetic viscosity increase together with native and modified starches
- Considerable reduction of the jelly separation
- High sterilisation stability
- Only exclusively suited for hot applications

Product Group	Dosage [%]	Benefits in final product using a selected example
 Meat products	0.5 – 1.0%	Application possibilities: • Sterilised tinned meat, eaten cold • Boiled sausage, eaten cold • Tumbled products (e.g., cooked ham) • Vegetable, soya and cereal burgers The following advantages can be expected: • Price-optimised combination of viscosity and gelling • Significant reduction of the jelly separation • Improved processing characteristics due to the increased cold viscosity

Example recipes

Ingredient	GEHA	Fat content	Dosage
Pork	S II	8%	17.50%
Pork	S VIII	90%	36%
Pork	S VI	50%	2.60%
Beef	R II	8%	2.00%
Bacon rind emulsion		Water-fat mixture	12%
Ice		0%	30%