

VIDOGUM LS 35/E

(native locust bean gum, technologically optimized guar gum)



Raw Material

VIDOGUM LS 35/E consists of native locust bean gum (E410) and specially selected, optimized guar gum (E412).

Locust bean gum is extracted from the endosperm of the wild tree 'Ceratonia siliqua L.'.

Origin: Mediterranean countries.

Guar gum is extracted from the endosperm of the bush 'Cyamopsis tetragonoloba L', cultivated in India and Pakistan.

Production

Separation of the endosperm, milling, sifting, technological optimization, standardisation.

Characteristics

VIDOGUM LS 35/E is only suitable for products that pass through a heating process.

VIDOGUM LS 35/E demonstrates a slightly reduced viscosity in comparison with **VIDOGUM L 150 – 175** making it possible to use a slightly higher dosage, which results in an improvement of the full-bodied taste.

VIDOGUM LS 35/E is only used in dairy products for which an increased full-bodied taste is required.

VIDOGUM LS 35/E demonstrates a creamy mouth-feel and behaves considerably less pseudo-plastic than native guar gum. Mouth-feel comparison:

VIDOGUM GH: slimy ↔ **VIDOGUM SP**: full-bodied ↔ **VIDOGUM LS 35/E**: creamy, full-bodied.

Its creaminess is close to that of native locust bean gum, although it comes with increased full-body taste as an additional benefit. Due to this unique mouth-feel, **VIDOGUM LS 35/E** is used with great success in quark based spreads and quark desserts.

VIDOGUM LS 35/E strengthens the gel network of agar-agar and k-Carrageenan. The gel structure becomes considerably more elastic with the addition of **VIDOGUM LS 35/E**.

The gelling optimum in aqueous solutions of k-Carrageenan and **VIDOGUM LS 35/E** is achieved at a ratio of 70 : 30.

In comparison with **VIDOGUM L**, a reduced gel strength is observed but combined with a specific texture.

**Viscosity,
Flow behaviour and
Gelling strength**

Benefits

- Synergy with k-Carrageenan, agar-agar → strengthening of gel network → cost reduction.
- Synergistic viscosity increase if used with native and modified starch.
- Syneresis reduction, of particular importance when using k-Carrageenan.
- Increase of elasticity of the k-Carrageenan gel networks → improved spreading.
- Improved protective colloid effect due to the increased cold viscosity, of special importance with a fat content < 27 %. At higher fat concentrations, the protective colloid effect of the milk fat is usually sufficient.
- Not suitable for cold applications.
- Not suitable for freeze / thaw stability.
- Creamy, full-bodied mouth-feel is particularly well suited for fruit quark and dairy based spreads.
- Very good aroma release.
- Very good taste neutrality.

Areas of use

Product Group	Dosage [%]	Benefits in final product using a selected example
Dairy and dessert products	0.2 – 0.4	<p>Thermally processed quark desserts and cream cheese – alone or in combination with k-Carrageenan or gelatine:</p> <ul style="list-style-type: none"> • Protects milk protein from sandiness during the heating due to the specific solubility characteristics → higher process security, improved quality (protective colloid effect). • Creamy mouth-feel, better melting action. • Improved spreading. • Can form a firm, spoon-able and elastic structure when used with k-Carrageenan. • Outstanding aroma release. • Very good taste-neutrality. • Syneresis prevention in comparison with pure k-Carrageenan. • As a rule, an addition before fermentation requires a fat content > 14% and use of additional hydrocolloids as stabilisers (e.g. pectin, agar-agar).
Organic products		<p>VIDOGUM LS 35/E (conventional Locust bean gum and Guar gum) may be used for the production of organic products within the “legal framework”.</p>