

VIDOGUM SP

(native tara gum)

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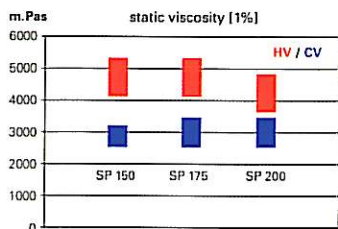
Raw materials

VIDOGUM SP (native tara gum E 417) is extracted from the endosperm of the seeds of the wild shrub *Caesalpinia spinosa* L. The active chain-shaped hydrocolloidal molecules belong to the Galactomannan group. Tara gum has been approved for use in the EU since 1995. Origin: Peru.

Production

Separation of the endosperm, milling, sifting, standardisation

Characteristics

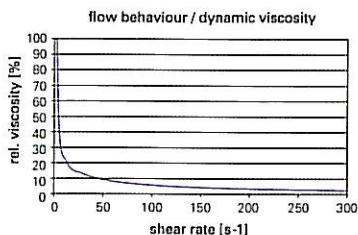


Viscosity

VIDOGUM SP 200 can be used for cold processes, but not for cold stirred Instant products. The hot viscosity is increased compared to locust bean gum, so that approx. 10% less needs to be dispensed for the same viscosity.

VIDOGUM SP 175 and VIDOGUM SP 150 are practically exclusively used in hot applications. The comparably high viscosity at the process start can actually represent an advantage:

- emulsifying effect in mayonnaise from the start of the process
- simpler filling of the sausage preparation for meat reduced sausages



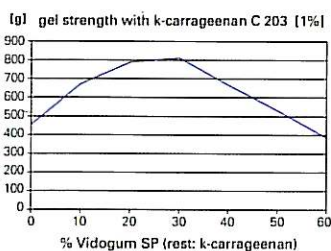
Flow behaviour

The flow behaviour and the resulting mouth-feel lies between native guar and locust bean gum. Mouth-feel in comparison:

VIDOGUM GH: slimy <-> VIDOGUM SP: full-bodied <-> VIDOGUM L: creamy

VIDOGUM SP is used above all for the product groups for which this unique mouth-feel fits in ideally with the corresponding customer expectations:

- Mayonnaise
- Dressings
- cold-consumed meat goods



Gelling strength

VIDOGUM SP synergetically strengthens the gelling network of agar-agar and k-Carrageenan – this synergy is less strongly marked in comparison with VIDOGUM L. Through the addition of VIDOGUM SP, the gelling structure will become considerably more elastic. The gelling optimum in aqueous solutions – k-Carrageenan: VIDOGUM SP lies at 70 : 30.

Together with xanthan, VIDOGUM SP forms smooth gels that are used, in particular, for delicatessen products. The gelling optimum in aqueous solutions of xanthan: VIDOGUM SP lies at 50 : 50.

With VIDOGUM SP 200, this gel already forms at room temperature – up to 24 hours is required for the complete formation of the gel.

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

VIDOGUM SP is used in many different applications. The characteristics, benefits and application possibilities listed here can thereby only represent a selection.

Characteristics and benefits

The characteristics of VIDOGUM SP (tara gum) lie between those of native locust bean and guar gum. Some characteristics are thereby very similar to those of locust bean gum, while others are very similar to guar gum. VIDOGUM SP is therefore a product with unique characteristics, which could not be obtained from a pure mixture of guar and locust bean gum.

Characteristics that correspond to those of native locust bean gum





- Synergy with k-Carrageenan, agar-agar -> Strengthening of the gelling network -> cost reduction
- Increase of the elasticity of k-Carrageenan gelling networks
- Gels (-> synergy) with xanthan (-> mayonnaise, dressings)
- Very good aroma release
- Very good taste-neutrality
- Can be used in saccharose solutions up to 60%
- Improved protective colloid effect of VIDOGUM SP 175 for thermally-treated quark on the basis of the specific solubility characteristics (goes continually into solution during the heating step) – of special importance at a fat content < 27%. With higher fat contents, the protective colloid effect of the milk fat is usually sufficient.

Characteristics that correspond to those of native guar gum

- VIDOGUM SP 200 suitable for cold applications
- Stable for freezing and defrosting -> suitable for deep-freeze products
- Hot viscosity comparable with guar gum, approx. 10% less dosage than locust bean gum, based on viscosity

Additional characteristics

- VIDOGUM SP 200 also forms a gel with xanthan for cold applications
- Syneresis reduction of particular importance when using k-Carrageenan
- Viscosity increase together with native and modified starches
- Full-bodied mouth-feel is particularly well suited to meat, culinary products and fruit products

Product Group	Dosage [%]	Benefits in final product using a selected example
 <p>Dairy and dessert products</p>	0.2 – 0.3	Heat-treated cream cheese – with k-Carrageenan: <ul style="list-style-type: none"> • Gelling network will be smoother and more elastic • Good syneresis prevention • Protects milk proteins from sandiness on the basis of the specific solubility characteristics during the heating step -> Higher process security, improved quality • Full, but less creamy mouth-feel in comparison with locust bean gum • As a rule, addition before the fermentation requires the following pre-conditions: Fat content: > 14%; use of additional hydrocolloids as stabilisers (e.g., pectin, agar-agar).
 <p>Fruit products and soft drinks</p>	0.1 – 0.5	Fruit preparations and fruit desserts – with pectin, modified starch and xanthan: <ul style="list-style-type: none"> • Particularly suitable for fruit preparations for all non-stirred yoghurts, as well as fruit desserts (e.g., red fruit jelly) • Outstanding aroma and acid release (-> feeling of freshness) • Full-bodied consistency that allows the impression of a higher fruit content to arise • Can be used in solutions up to a saccharose content of 60%
 <p>Culinary products</p>	0.1 – 0.4	Mayonnaise, dressings - with xanthan and modified starches, produced cold and hot: <ul style="list-style-type: none"> • Forms a weak gel with xanthan (-> very pleasant mouth-feel) • Gelling with xanthan, even in cold process (->VIDOGUM SP 200), gelling complete after 24 hours at the latest (+20 °C) • Stable for freezing and defrosting -> suitable for deep-freeze products
 <p>Meat products</p>	0.1 – 0.4	In principle, a distinction must be made between meat products that are consumed hot or cold. Cold -consumed boiled sausages (e.g., cold cuts, liverloaf), tumbled products and sterilized tinned sausages with low meat and high water content in combination with k-Carrageenan. As a rule, no further thickening agents, such as VIDOGUM G 200I (guar gum), are needed. <ul style="list-style-type: none"> • Improves the gelling strength of k-Carrageenan - gels (-> cost reduction) • Residual full-bodied mouth-feel after the k-Carrageenan gelling structure has been destroyed during consumption (-> rounds-off the consumption experience) • Very natural gel structure, the gel becomes more elastic • Reduction of the jelly separation • Syneresis reduction during storage (e.g., vacuum packaging) -> improves storage stability
	0.05 – 0.2	In the case of boiled sausages that are consumed hot and sterilised frankfurters, the same basically applies as for cold-consumed meat products. Due to the weaker gelling of k-Carrageenan at the consumption temperature (approx. 35 – 50°C), a comparably lower amount of k-Carrageenan is added in many cases – in most cases, a correspondingly lower amount of VIDOGUM SP is then used. A combination with VIDOGUM G 200 I would be of particular advantage here. Hot and cold consumption: An additional use of VIDOGUM KJ, KJ-HN, KJP (Konjak Gum, E 425) could lead to a further optimisation of the price/performance ratio depending on the application.