

VIDOGUM G I

(native standardised guar gum)

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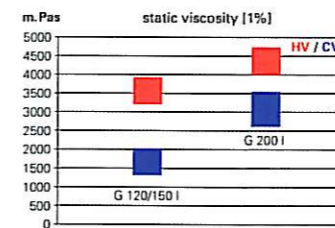
Raw materials

VIDOGUM G I (guar gum E 412) is extracted from the endosperm of the bush "Cyamopsis tetragonoloba L.". Unlike locust bean and tara gum, this is cultivated rurally. Origin: India, Pakistan

Production

1st step: Separation of the endosperm, milling, sifting (-> India)
2nd step: Standardisation and quality assurance (-> UNIPEKTIN, Switzerland).

Characteristics

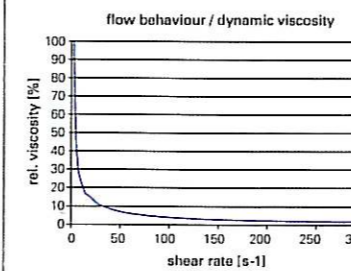


Viscosity

VIDOGUM G I is offered in two qualities:

- VIDOGUM G 120/150 I: coarse quality – is used in particular for products for which a delayed swelling is desired, or where lumps would otherwise result.
- VIDOGUM G 200 I: fine quality – the majority of the applications are covered by this quality, which, in addition to an improved cold solubility, also shows a higher hot viscosity. UNIPEKTIN obtains guar gum from India in containers and standardises it according to viscosity, either according to its own standard specifications or according to customer specifications. A batch can therefore be regarded as a homogeneous unit with regard to all important quality factors.
- VIDOGUM G 200 I is suitable for both hot and cold processes, but not for cold-soluble Instant products that are not subjected to strong shearing.

VIDOGUM G I is the most inexpensive possibility of building up viscosity. If none of the restrictions mentioned in the Characteristics paragraph apply, therefore is recommended for use VIDOGUM G I.



Flow behaviour

VIDOGUM G I features a slimy mouth-feel.

VIDOGUM G I: slimy <-> VIDOGUM SP: full-bodied <-> VIDOGUM I: creamy

The sliminess becomes particularly evident at higher dosages (> 0.2%), which is why VIDOGUM G I is used for many products in lower dosages without any noticeable impairment due to its cost advantages. Here, the competitive environment and the product positioning frequently plays a decisive role. In some applications, however, a pseudo-plastic consistency is also expressly desired:

- Dips, dressings and ketchup, which should be able to be simply sprayed out of their dispensing bottles.
- Products that have a slimy consistency from by, such as chocolate mousse.
- Shakes

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

Characteristics and benefits







- Suitability for cold and hot applications
- Synergetic viscosity increase together with native and modified starches, as well as xanthan
- Strongly liquefies during stirring due to its pseudo-plastic characteristics -> simple dispensing
- Stable for freezing and defrosting -> suitable for deep-freeze products
- Dissolves easily in solutions with 50° brix without thereby increasing the viscosity. The dispersed particles immediately dissolve again after redilution, through which the viscosity can be built up. "Carry-Over effect"
- Still maintains approx. 65% of its viscosity at a temperature of 75°C compared to that at room temperature (reversible viscosity loss). As a result, VIDOGUM G I is especially well suited for applications in which the highest possible viscosity is required in the hot area.
 - High viscosity when eaten hot
 - Stabilisation during process temperatures (pasteurisation, sterilisation)
 - Already provides sufficient viscosity at hot filling temperatures -> reduces "splashing" -> filling machines can be set to a higher speed.

VIDOGUM G I should not be used:

- If an absolutely white end-product colour is to be achieved (VIDOGUM G I creates a slightly yellow colour) -> alternative: VIDOGUM GH
- If the lack of taste neutrality (slightly characteristic taste of beans) would be disruptive -> alternative VIDOGUM GH
- If a thickening is expected for saccharose solutions > 40% -> alternative: VIDOGUM SP, L, VIDOCREM.
- In cases of cold-soluble Instant products that will not be subjected to strong shearing -> alternative: VIDOCREM
- If a very good aroma release is required and, at the same time, dosages > 0.15% are to be used - this must be noted in particular with products that are consumed cold -> alternative: VIDOGUM L, SP, VIDOCREM
- If a creamy and full-bodied mouth-feel is expected for heavily fat-reduced products -> alternative: VIDOCREM

VIDOGUM G I should be combined with other types if:

- The slimy mouth-feel at dosages > 0.2% represents a problem -> combine with VIDOGUM L, SP, VIDOCREM
- The syneresis (dosages often have to be insufficient due to viscosity limitations) cannot be avoided -> combine with VIDOCREM AI
- Gelling structures should be supported or built-up -> combine with VIDOGUM SP, L, KJ

Product Group	Dosage [%]	Benefits in final product using a selected example
 Dairy and dessert products	0.2 – 0.4	Dairy products, dairy desserts, fruit quark – together with gelatine or modified starch: <ul style="list-style-type: none"> • Build-up of viscosity • Improved whipping characteristics for foamed products (pseudo-plastic flow behaviour) • Syneresis prevention, necessary dosage is limited by the viscosity, however • As a rule, an addition before fermentation requires the following conditions: Fat content: > 14%; the use of additional hydrocolloids as stabilisers (e.g., pectin, agar-agar)
 Fruit products and soft drinks	0.2 – 0.5	Fruit preparations for yoghurts (addition at the start of the process at 40° brix) <ul style="list-style-type: none"> • Favourable thickening in combination with modified starch • Specially suited for stirred yoghurts
	0.7 – 1.2	Fruit preparations for yoghurts (addition at the end of the process at at least 50° brix – Carry Over to white mass) <ul style="list-style-type: none"> • Dispersed guar gum thickens the white mass after the mixing • Specially suitable for stirred yoghurts in the low price sector with low dry solid content
 Culinary products	0.1 – 0.5	Mayonnaise, ketchup, dips, sauces (e.g., in combination with xanthan and VIDOGUM SP-SYN) <ul style="list-style-type: none"> • Build-up of viscosity • Only limited suitability for fat-reduced products • Simple dispensing with dispensing bottles thanks to the pseudo-plastic effect • Provides very thick texture at hot consumption temperatures
 Meat products	0.2 – 0.5	<ul style="list-style-type: none"> • Boiled sausages and sterilised sausages with low meat content • Build up of viscosity during chopping (-> better processing characteristics for filling process) • Suppresses jelly separation, less leaching during the boiling process • Provides better consistency for sausages that are eaten hot (Frankfurters) due to the good viscosity maintenance under these conditions.
 Organic products		VIDOGUM G I (conventional guar gum) may be used for the production of organic products within the framework of the current EU directives.
 Dietary and pharmaceutical products		Is used: <ul style="list-style-type: none"> • To increase viscosity • For gluten free bread • To increase the feeling of satiation • To reduce the cholesterol content (may not be advertised in some countries)