

# FOOD

# VIDOGUM BIO-L®

(Native organic locust bean gum)



## Raw Material

**VIDOGUM BIO-L** (native organic locust bean gum E 410) is extracted from the endosperm of the wild 'Ceratonia siliqua L.' tree. It is only processed from organically-certified raw material that corresponds to the current EU directives. Unlike conventional locust bean gum, the raw material originates from clearly designated plots whose characteristics correspond to the requirements of biological agriculture. This raw material is kept separate from the conventional quality, from tree to end product – as a result of which a pure biological quality can be created. The active chain-like hydro-colloid molecules belong to the Galactomannan group. Origin: Mediterranean countries.

## Production

Separation of the endosperm, milling, sifting, standardisation. This production process is certified according to the statutory EU specifications – a corresponding current organic certificate is available.

## Characteristics

**VIDOGUM BIO-L** is only suitable for products that pass through a heating process. The viscosity only builds late in the heating process.

- Better retention of fruit pieces in fruit preparations due to lower shear forces.
- Through a delayed solubility during heating-up, the counter-pressure in a closed heating system can be reduced.

**VIDOGUM BIO-L** demonstrates pseudo-plastic flow characteristics and a particularly creamy mouth-feel.

It thereby differentiates itself strongly from solutions with native organic starches, which behave particularly as Newtonian liquids (no liquefaction during shearing).

For this reason, both locust bean gum and starches are particularly suitable for use in combination – in this way, the flow behaviour and the resulting mouth-feel for the desired end products can be exactly adjusted.

## Viscosity and Flow behaviour



## Benefits

- **VIDOGUM BIO-L** corresponds to the current EU directives with regard to organic cultivation and is used wherever the recipes must consist exclusively of organically certified raw materials.
- The current Organic certificate according to EU directives is available upon request.
- **VIDOGUM BIO-L** is one of the few thickening agents, together with organic native starches, to accommodate the directives of organic cultivation and the corresponding production specifications (only physical process steps are used).
- **VIDOGUM BIO-L** allows to broaden your product diversity – many 100 % organic, industrially produced food products with their high level of consumer acceptance would not be feasible without the use of organic locust bean gum.
- Synergistic viscosity increases when used together with native organic starches.
- Increase of storage stability (shelf-life) as well as reducing the tendency to syneresis, which is of great importance in combination with native organic starches.
- Creamy mouth-feel (→ pseudoplastic flow behaviour), gives more full-bodied taste to the product.
- Very good aroma release and very good taste neutrality.
- Solubility in sucrose solutions up to 60Bx.
- Not freeze-thaw stable, but binds the free water again after a second heating step.

## Areas of use

The characteristics, benefits and application possibilities listed here only represent a selection.

Product Group	Dosage [%]	Benefits in final product using a selected example
Organic Products	0.1 – 0.3	<p>Fruit preparations, curd cheese, fruit and pudding desserts, spreads containing cream, mayonnaise and dressings – as single ingredient or possibly in combination with native organic starches:</p> <ul style="list-style-type: none"> <li>• Creaminess.</li> <li>• Improvement of the flow characteristics (→"natural" structure and consistency).</li> <li>• Can very effectively round-off the sensory and rheological characteristics.</li> <li>• Full-bodied taste.</li> <li>• Syneresis reduction (→ extension of the storage stability).</li> <li>• Addition before the fermentation process is generally not possible.</li> </ul>