

PRODUCT DATA SHEET

GELLAN GUM HS-202

Gellan gum is a fermentation-derived hydrocolloid produced by the microorganism *Pseudomonas elodea* (ATCC 31461). Gellan Gum HS-202 is a unique texturizing agent designed to be used in chocolate spreads, custard fillings, mayonnaise, processed cheese, fruit fillings and confectionery products to impart creaminess and improve texture. Gellan Gum HS-202 can be used in combination with other hydrocolloids to give different textures and mouthfeels. Typical use levels of Gellan Gum HS-202 range from 0.1% to 0.5%.

HS-202 Features and Benefits

| Key feature | Benefits |
|-------------------------|--|
| Optimal gelling profile | Reduced tendency for pre-gelling in high solids systems |
| Unique texture | Imparts creamy mouthfeel and improves body in low fat and/or low sugar systems |
| Highly pseudoplastic | Excellent pumpability and spreadability |
| Heat tolerant | Stable under high storage temperature (<70°C) |

Dispersion

To disperse the product without lumps:

- Premix the powder with other dry ingredients, and add the dry mix slowly into the liquid under sufficient stirring to obtain a complete dispersion;
- Or disperse the product in a non-solvent medium such as oil or alcohol before adding to water.

Hydration

Gellan Gum HS-202 swells in deionized water to a starch-like consistency (when the concentration is high enough). Heat is required to fully hydrate Gellan Gum HS-202. The gum can usually hydrate at about 85-90°C. Hydration of Gellan Gum HS-202 can be improved with the addition of a chelating agent such as sodium citrate.

Gel Formation

Gellan Gum HS-202 forms a strong gel in the presence of cations such as calcium. Gellan Gum HS-202 can also gel without the use of cations if gum concentration is high enough or under high solids environment.

Regulation

This product conforms many legislative standards. However, we recommend that the user ensures that this product is in compliance with the local regulations in force, particularly in the country where the product is to be consumed.

Quality Assurance

Zhejiang DSM Zhongken Biotechnology is certified with ISO 9001 and FSSC 22000. It is also approved for Kosher and Halal.

Packaging, Storage and Shelf Life

The product is packed in 20 kg/carton with a PE inner bag. Store product in ambient temperature and away from direct sunlight. The product, when stored in these conditions and in its original unopened packaging, will maintain its initial properties for 24 months.

Specifications

(Testing done on every lot)

| Property | Requirement |
|---|---------------------------|
| Appearance | Off-white powder |
| Purity (gellan gum content) | 85-108% |
| Gel strength (1%) | 150-300 g/cm ² |
| Particle size (Pass 60 mesh with 280 µm aperture) | ≥96% |
| Loss on drying | ≤15% |
| Ash | ≤15% |
| pH value | 4.5-6.5 |
| Total bacterial count | ≤10000 cfu/g |
| Mold & yeast | ≤400 cfu/g |
| Coliform | ≤30 MPN/100g |

Other Specifications

(Periodic inspection)

| Property | Requirement |
|---------------|-----------------|
| Salmonella | Negative in 25g |
| E. coli | Negative in 25g |
| Lead | ≤2 mg/kg |
| Heavy metals | ≤20 mg/kg |
| Total arsenic | ≤3 mg/kg |
| Mercury | ≤1 mg/kg |
| Cadmium | ≤1 mg/kg |
| Nitrogen | ≤3 g/100g |

DSM Hydrocolloids

For further information, please see:

www.dsm.com

www.dsm.com/hydrocolloids

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