

## Glucomannan Powder



Our **glucomannan powder** is a highly purified, water-soluble dietary fiber extracted from the corm of *Amorphophallus konjac* (konjac root). With **≥95% glucomannan content**, it delivers exceptional thickening, gelling, and water-binding capacity at extremely low use levels—making it one of the most efficient natural hydrocolloids available.

Unlike modified starches or synthetic gums, glucomannan is **non-GMO, vegan, gluten-free, zero-calorie**, and backed by clinical research for digestive health, weight management, and metabolic support.

**Note:** This product is distinct from whole konjac flour—it undergoes additional purification to remove residual proteins, ash, and odor compounds, resulting in a neutral-tasting, high-purity fiber ideal for sensitive applications like clear beverages or dietary supplements.

### What Is Glucomannan?

Glucomannan is a high-molecular-weight polysaccharide composed of  $\beta$ -(1→4)-linked D-mannose and D-glucose units in a ~1.6:1 ratio. Its unique linear structure enables:

- Extreme water absorption (up to 200x its weight)
- Formation of viscous, non-gelling solutions in cold water

- Synergy with xanthan gum or carrageenan for elastic gels (with heat/alkali)
- Resistance to human digestive enzymes → **0 kcal/g**

Our glucomannan powder is produced using food-grade water extraction and membrane filtration—without chemical solvents, bleaching agents, or sulfites.

## Key Functional & Health Benefits

- **Clinically Proven Satiety Aid:** Swells in stomach, promoting fullness (EFSA & Health Canada approved claims)
- **Cholesterol & Blood Sugar Support:** Reduces postprandial glucose and LDL-C at 3–4 g/day
- **Prebiotic Potential:** Fermented by colonic microbiota to produce short-chain fatty acids
- **Zero Calories & Net Carbs:** Fully compliant with keto, paleo, and diabetic diets
- **Ultra-High Viscosity:** Effective at 0.1–0.5% usage levels
- **Clean Label:** Listed as “glucomannan” or “konjac fiber”

**Usage Guidance:** Always mix with at least 250 mL of water before consumption to prevent esophageal blockage. For food use, disperse in cold liquid before heating.

## Technical Specifications

Parameter	Glucomannan Powder
<b>Botanical Source</b>	<i>Amorphophallus konjac</i>
<b>Appearance</b>	White to off-white fine powder
<b>Odor &amp; Taste</b>	Odorless; neutral, no earthy or fishy notes
<b>Glucomannan Content (Dry Basis)</b>	≥95% (enzymatic-gravimetric method, AOAC)
<b>Viscosity (0.5% solution, 25°C)</b>	≥30,000 mPa·s (Brookfield, spindle #3, 12 rpm)
<b>Moisture Content</b>	≤10.0%
<b>Ash Content</b>	≤1.5%

<b>Parameter</b>	<b>Glucomannan Powder</b>
<b>Protein</b>	≤1.0%
<b>pH (1% solution)</b>	5.5 - 7.0
<b>Particle Size (D[90])</b>	≤150 µm
<b>Bulk Density</b>	0.40 - 0.55 g/mL
<b>Shelf Life</b>	24 months (sealed, cool & dry storage)
<b>Heavy Metals (Maximum Limits)</b>	
- Lead (Pb)	≤0.5 mg/kg
- Arsenic (As)	≤0.5 mg/kg
- Cadmium (Cd)	≤0.1 mg/kg
- Mercury (Hg)	≤0.03 mg/kg
<b>Microbiological Criteria</b>	
- Total Plate Count	≤10,000 CFU/g
- Yeast & Mold	≤100 CFU/g
- <i>Escherichia coli</i>	Absent in 1 g
- <i>Salmonella</i> spp.	Absent in 25 g
- <i>Listeria monocytogenes</i>	Absent in 25 g
<b>Allergen Status</b>	Gluten-Free (<5 ppm), Soy-Free, Dairy-Free, Nut-Free

Analytical methods: AOAC 991.43 for total dietary fiber; viscosity per ISO 12048. Complies with FDA GRAS (21 CFR 172.859), EU Novel Food regulations (for glucomannan capsules), and JECFA specifications.

## Applications

- **Dietary Supplements:** Capsules, tablets, or drink mixes for weight control
- **Shirataki Noodles & Low-Calorie Pasta:** Primary gelling agent
- **Sauces, Dressings & Soups:** Ultra-efficient thickener without cloudiness
- **Plant-Based Meats:** Improves moisture retention and bite texture
- **Bakery Fillings:** Prevents syneresis in fruit fillings and glazes
- **Functional Beverages:** Adds fiber without grittiness (when properly dispersed)

**Pro Tip:** For instant dispersion, blend glucomannan with sugar or maltodextrin before adding to liquids.

## Why Choose Our Glucomannan Powder?

We source konjac from certified farms and use advanced purification to achieve >95% purity—significantly higher than standard konjac flour (typically 70–85%). This ensures consistent viscosity, minimal odor, and compliance with strict supplement and infant nutrition standards.

Available packaging:

- 10 kg or 25 kg multi-wall paper bags with PE liner
- 500 kg–1,000 kg FIBCs for industrial users
- Custom particle size (standard or micronized) available

## FAQs

### Q: How does Glucomannan work for weight management?

A: **Glucomannan** works primarily by absorbing a large amount of water in the stomach, forming a viscous gel. This gel creates a feeling of fullness or satiety, which can help reduce overall food intake and caloric consumption, thereby supporting weight loss efforts when combined with a calorie-restricted diet.

### Q: Is Glucomannan suitable for gluten-free and keto products?

A: Yes, **Glucomannan** is naturally **gluten-free** as it's derived from the Konjac plant, not grains. It's also **keto-friendly** due to its virtually zero net carb content and high fiber contribution, making it ideal for low-carb formulations.

**Q: What's the typical shelf life and recommended storage for bulk quantities?**

A: Our **Glucomannan** typically has a shelf life of **24 months** from the manufacturing date when stored in a cool, dry place (below 75°F / 24°C), away from direct sunlight and moisture, in its original sealed, airtight packaging. Proper sealing is critical to prevent moisture absorption.

**Q: What is the recommended dosage for weight management benefits?**

A: For weight management, generally accepted effective dosages are around **1 gram of glucomannan three times a day** before meals, with plenty of water. However, the exact dosage will depend on your product formulation and the specific health claims you aim to make, and it's advisable to consult regulatory guidelines.

**Q: Does Glucomannan have any taste or odor?**

A: **Glucomannan** is known for its **neutral taste and odor**, making it highly versatile for incorporation into various food and beverage products without introducing undesirable flavors.

## Packing



For more information, please visit our website:

<https://www.bio-starch.com/products/glucomannan/>

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