

## Konjac Flour



Our **konjac flour** is a fine, off-white powder milled from the dried corm of ***Amorphophallus konjac*** (konjac root or konnyaku imo), cultivated without synthetic pesticides, herbicides, or GMOs. With  $\geq 90\%$  **glucomannan content**, it is one of the purest natural sources of water-soluble dietary fiber available—delivering exceptional thickening, gelling, and water-binding capacity at very low usage levels (0.1–1.0%).

Unlike starches or gums, konjac flour forms thermo-irreversible gels in the presence of alkali (e.g., calcium hydroxide or sodium carbonate), making it indispensable for traditional Asian noodles, plant-based seafood, and clean-label meat analogs.

### What Is Konjac Flour?

Konjac flour consists primarily of **glucomannan**, 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 structure enables:

- Extremely high viscosity (even at 0.5% concentration)
- Synergy with xanthan gum, carrageenan, and agar for elastic gels
- Neutral taste and odor when properly processed
- Complete resistance to digestion → **0 kcal/g**

Our konjac flour is produced using mechanical cleaning, milling, and air-classification—without chemical bleaching, acid treatment, or sulfites.

## Key Functional & Health Benefits

- **Zero calories & zero net carbs:** Fully compliant with keto, paleo, and diabetic diets
- **High satiety:** Swells in stomach, promoting fullness (EFSA-approved health claim)
- **Cholesterol & blood sugar support:** Clinically shown to reduce postprandial glucose and LDL
- **Gluten-free & allergen-free:** Safe for celiac and sensitive consumers
- **Water-holding capacity:** Binds up to 200x its weight in water
- **Clean label:** Listed simply as “konjac flour” or “glucomannan”

△ **Usage Note:** Always disperse konjac flour in cold liquid before heating to prevent lumping. For gels, add a small amount of alkali (e.g., pickling lime).

## Technical Specifications

Parameter	Konjac Flour
<b>Botanical Source</b>	<i>Amorphophallus konjac</i>
<b>Appearance</b>	Off-white to light beige fine powder
<b>Odor &amp; Taste</b>	Very mild; no fishy or earthy off-notes
<b>Glucomannan Content (Dry Basis)</b>	≥90% (by enzymatic-gravimetric method)
<b>Viscosity (1% solution, 25°C)</b>	≥25,000 mPa·s (Brookfield, spindle #3, 12 rpm)
<b>Moisture Content</b>	≤10.0%

<b>Parameter</b>	<b>Konjac Flour</b>
<b>Ash Content</b>	≤4.0%
<b>pH (1% slurry)</b>	5.0 – 7.0
<b>Particle Size (D[90])</b>	≤150 μm
<b>Bulk Density</b>	0.40 – 0.60 g/mL
<b>Shelf Life</b>	24 months (stored sealed in cool, dry place)
<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, Corn-Free

Analytical methods: AOAC 991.43 for 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

- **Shirataki / Konjac Noodles:** Primary ingredient for zero-calorie pasta alternatives
- **Plant-Based Meat & Seafood:** Provides bite, juiciness, and moisture retention
- **Sauces, Dressings & Soups:** Ultra-efficient thickener at low dosage
- **Bakery Fillings & Glazes:** Prevents syneresis, improves gloss
- **Dietary Supplements:** Capsules or powders for weight management and digestive health
- **Pet Treats:** Natural fiber source for digestive wellness in dogs/cats

**Pro Tip:** Combine with 0.1% xanthan gum to create elastic, chewy textures ideal for vegan calamari or scallops.

## Why Choose Our Konjac Flour?

We source konjac corms from certified farms in mountainous regions of China and Southeast Asia, where traditional cultivation ensures high glucomannan content. Our milling facility uses dedicated lines to prevent cross-contamination, and every batch is tested for viscosity, purity, and heavy metals.

We also offer **deodorized** and **ultra-fine** grades upon request for sensitive applications like clear beverages or infant nutrition.

Available packaging:

- 10 kg or 25 kg multi-wall paper bags with food-grade PE liner
- 500 kg-1,000 kg FIBCs for industrial users
- Custom packaging and private labeling available

## FAQs

### Q: Is konjac flour keto-friendly?

A: Yes! With 0 net carbs and high fiber, it's ideal for keto and low-carb diets.

### Q: How does MOS differ from FOS/GOS?

A: MOS specifically targets *Lactobacillus* and *Bifidobacteria*, enhancing immune function.

**Q: Can glucomannan replace xanthan gum?**

A: Yes—it provides superior thickening and is allergen-free.

**Q: Is MOS safe for pets?**

A: Absolutely! MOS is widely used in premium pet foods for digestive health.

**Q: Do you offer private labeling?**

A: Yes! Custom branding available for all three products.

**Packing**

For more information, please visit our website:

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