Organic Mung Bean Starch Powder

What is Organic Mung Bean Starch Powder?

Organic Mung Bean Starch Powder is extracted from certified organic mung beans (*Vigna radiata*) using a water-based, solvent-free process. This native starch features exceptionally high amylose content (35-40%) for strong gelling, ultra-transparency, and smooth texture. Ideal as a clean-label alternative to modified starches in culinary, food manufacturing, and technical applications.

Specifications

Parameter	Specification
Botanical Source	*Vigna radiata* (organic mung beans)
Starch Purity	≥99% (AOAC 996.11)
Amylose Content	35-40%
Moisture	≤12%
Protein Residue	≤0.2% (Kjeldahl)
Ash Content	≤0.3%
*Whiteness (L value)**	≥92 (Hunter Lab)
pH (10% slurry)	6.0-7.0
Particle Size (D50)	15-25μm
Swelling Power	≥25 g/g (90°C)
Solubility	≥85% (hot water)
Viscosity (Brabender)	Peak: 600-800 BU
Gelatinization Temp	60-70°C

Key Highlights

- **Crystal-Clear Gels**: Light transmittance >99% (vs. corn starch 75%)
- **Freeze-Thaw Stability**: Withstands 5+ cycles without syneresis
- **Clean-Label**: Non-GMO, E-number-free, no chemical modification
- **Functional Superiority**: Higher gel strength than potato/tapioca starch

Key Features & Benefits

1. **Texture & Clarity Optimization**
    - **Transparent Gels**: Forms glass-like gels for fruit fillings, aspics
    - **Smooth Mouthfeel**: Prevents graininess in sauces/puddings

- **Shear Resistance**: Maintains viscosity in high-speed processing

2. **Stability Performance**
   - **Freeze-Thaw Resilience**: Ideal for frozen desserts/pastries
   - **Acid Tolerance**: Stable at pH 3.0-8.0 (dressings/fruit preparations)
   - **Low Retrogradation**: Delays staling in gluten-free baked goods
3. **Nutritional & Safety Profile**
   - **Hypoallergenic**: Gluten-free, nut-free, top-14-allergen-free
   - **Low Glycemic Impact**: Slow glucose release (GI 45 vs. corn starch 90)
   - **Resistant Starch**: 5-8% RS3 content (prebiotic benefits)
4. **Process Efficiency**
   - Cold-water swelling (no pre-gelatinization needed)
   - 30% less usage vs. corn starch for equivalent viscosity

Applications

Industry	Use Cases	Usage Level
Asian Cuisine	Glass noodles, mochi, tangyuan	100% starch base
Confectionery	Gummies, jelly candies, fruit fillings	8-15%
Sauces & Soups	Clear gravies, hot pot broths, transparent sauces	3-8%
Bakery	Gluten-free bread binders, pastry creams	5-20% of flour weight
Frozen Foods	Ice cream stabilizer, frozen dumpling fillers	1-4%
Industrial	Biodegradable packaging, paper coating	10-30% suspension
Pharmaceuticals	Tablet binder/disintegrant, capsule filler	5-15%

Certifications & Quality Assurance

- **Organic**: USDA, EU Organic, JAS
- **Non-GMO**: Non-GMO Project Verified

- **Safety**:
  - Heavy Metals: Pb<0.1ppm, Cd<0.05ppm, As<0.2ppm
  - Pesticides: 500+ residues non-detect (GC-MS/LC-MS)
  - Microbiology: TPC<10,000 CFU/g
- **Performance Testing**:
  - Pasting properties (Brabender ViscoAmylograph)
  - Gel strength (TA.XT Plus Texture Analyzer)
  - Freeze-thaw stability (AACC 22-50)

Why Choose Us

Technical Excellence

- **Low-Protein Extraction**: Patented wet-milling yields <0.2% protein
- **Granule Integrity**: Undamaged starch granules for optimal swelling

Supply Chain Transparency

- Traceable to organic farms (blockchain-enabled)
- Batch-specific COAs with amylose verification

Sustainability Commitment

- Water recycling (closed-loop processing)
- Bean protein co-product utilization (zero waste)

FAQs

Q: How does it compare to cornstarch?

A: Higher gel strength, clearer texture, and better freeze-thaw stability.

Q: Is it suitable for keto diets?

A: Yes! Contains resistant starch (low digestible carbs) for gut health.

Q: Can it replace tapioca starch?

A: Yes – use 1:1 in recipes but reduce water slightly due to higher absorbency.

Q: MOQ for bulk orders?

A: 500kg for production batches; 25kg trial orders available.

Packing

Want to learn more about this product or have any questions?

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