



PRODUCT DATA SHEET

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Agar Agar Conventional Food Grade

INS 406 | E 406 | CAS 9002-18-0

CAGARG™ CB / CAGARG™ MK / CAGARG™ SP / CAGARG™ HT

1. PRODUCT DESCRIPTION

CAGARG™ is a natural hydrocolloid extracted from red seaweeds of the genera *Gelidium* and *Gracilaria*. It is composed primarily of agarose (gel-forming fraction) and agaropectin, forming strong, thermoreversible gels with high melting temperature.

This is Conventional Food Grade Agar, requiring heating for full dissolution.

Dissolution Temperature: 85–100°C

Gelation Temperature: 32–45°C

Melting Temperature: 80–95°C

2. KEY FEATURES & BENEFITS

- ◆ Strong & Stable Gel Network: Forms firm gels with excellent structure integrity and clean break texture.
- ◆ High Thermal Hysteresis: Gel melting temperature significantly higher than gelling temperature — ideal for warm-climate and high-temperature applications.
- ◆ Wide Gel Strength Portfolio: Available from 300 g/cm² to ≥1300 g/cm² to match cost-performance requirements.
- ◆ Broad pH Compatibility: Stable in pH 4.0–8.0 (optimal performance near neutral).
- ◆ Plant-Based Gelatin Alternative: Vegan-friendly and suitable for vegetarian formulations.

3. TYPICAL APPLICATIONS

Application	Recommended Level	Functional Role
Bakery Fillings & Glazes	0.3–1.5%	Structure & heat resistance
Fruit Jams & Preparations	0.5–1.2%	Firm gel & clean cut
Dairy (Yogurt, Dessert)	0.05–0.8%	Syneresis control
Confectionery & Jelly	0.5–1.5%	Elastic gel formation
Meat & Canned Products	0.2–1.0%	Binder & moisture retention
Beverage Systems	0.1–0.5%	Suspension stability

4. PRODUCT SPECIFICATIONS

Parameter	Specification
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Appearance	White to light yellow powder or flakes
Moisture	≤ 15%
Gel Strength (low)	300 – 500 g/cm ²
Gel Strength (Medium)	500 – 900 g/cm ²
Gel Strength (High)	900 – 1300 g/cm ²
Gel Strength (Premium)	≥1300 g/cm ²
Total Ash	≤ 5%
Acid Insoluble Ash	≤ 0.5%
Sulfate	≤ 6%
pH (1–1.5%)	5.0 – 7.5
Particle Size (powder)	≥95% pass 80 mesh
Heavy Metals	In compliance with FAO/WHO & EU limits
Microbiology	Food-grade compliant

Full specification sheet available upon request.

5. REGULATORY COMPLIANCE

Compliant with international food standards: FAO/WHO (INS 406), EU Regulation for E 406, FCC (Food Chemicals Codex)

Available Certifications: ISO 9001 | HACCP | Halal | Kosher

Non-GMO, Allergen-Free, BSE/TSE-Free

6. PACKAGING

Standard Packaging: 25 kg kraft paper bag with PE liner

Optional: 20 kg cartons or as required

7. STORAGE CONDITIONS & SHELF LIFE

Storage Conditions: Store in a cool, dry place away from direct sunlight, heat sources, and strong odors. Temperature: < 25°C recommended (optimal 10-20°C), Relative Humidity: < 60%

Shelf Life: 24 months from date of manufacture when stored under recommended conditions

Transport: Strictly prohibit transport with poisonous materials; protect from moisture and contamination

For detailed technical specifications or customized grades, please contact CAG for the formal Product Data Sheet (PDS).

** This product data sheet provides typical technical data for initial evaluation. Specifications are based on international standards for INS 428 / E 441. Actual values may vary depending on grade and production batch.**