



PRODUCT DATA SHEET

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Apple High Methoxyl Pectin

INS 440 | E 440 | CAS 9000-69-5

CAGPEC™ APS

1. PRODUCT DESCRIPTION

CAGPEC™ APS is a premium Apple High Methoxyl (HM) Pectin derived exclusively from apple pomace (*Malus domestica*). It is a natural hydrocolloid widely used in high-sugar fruit preparations, confectionery, and beverages where clear gel structure and superior flavor release are required. Apple HM Pectin forms gels in systems with high soluble solids (>55%) and low pH (2.8–3.5).

Appearance: Light yellow to light brown free-flowing powder

Solubility: Dispersible in hot water (70–85°C)

Gel Type: Non-thermoreversible, clear and firm gel (sugar-acid activated)

Degree of Esterification: >50% (Typical 60–75%)

2. KEY FEATURES & BENEFITS

- ◆ Apple-Derived – 100% from apple source
- ◆ Excellent Clarity – Bright, transparent gel structure
- ◆ Superior Flavor Release – Ideal for premium fruit systems
- ◆ Strong Gel Strength Options – Up to 160° USA-SAG
- ◆ Multiple Setting Types – Rapid Set / Medium / Slow Set
- ◆ Beverage Grade Available – Controlled viscosity option
- ◆ Consistent Performance – Standardized with sugar

3. TYPICAL APPLICATIONS

Application	Recommended Grade	Dosage	Functional Benefit
High Sugar Jam (60–65% SS)	AP 100 / AP 200	0.2–0.6%	Firm, spreadable gel; fruit suspension
Confectionery Candy, Gums	(Fruit AP 300 / AP 800 / AP 900)	0.8–1.5%	Clear, firm gel; premium texture
Juice & Beverages	AP 700	0.01–0.5%	Viscosity control; pulp suspension
Fruit Prep for Yogurt	AP 100 / AP 200	0.3–0.8%	Smooth texture; heat stable
Bakery Fillings	AP 300 / AP 800	0.3–0.8%	Bake-stable; prevents syneresis
Marmalade	AP 100	0.3–0.7%	Even peel suspension; firm gel

4. PRODUCT SPECIFICATIONS

Parameter	Specification
Appearance	Light yellow to light brown powder

Parameter	Specification
Odor & Taste	Characteristic apple pectin, neutral flavor
Galacturonic Acid	≥ 65%
Degree of Esterification	> 50% (HM)
Gel Strength	150 ± 5° or 160 ± 7° (grade dependent)
Viscosity (AP 700)	400–600 cP (4% solution)
Loss on Drying	≤ 12%
Total Ash	≤ 5%
Acid Insoluble Ash	≤ 1%
pH (1% solution)	2.5 – 3.8
Heavy Metals	Complies with international standards
Microbiology	Complies with food safety standards

Full technical specification sheet available upon request

5. REGULATORY COMPLIANCE

CAGPEC™ APS complies with: • JECFA (INS 440)• EU Regulation (E 440)• FCC
• GB Standards

Certifications available:

ISO 9001 | ISO 22000 | HACCP | GMP

Halal | Kosher | Non-GMO | Allergen-Free | Vegan Suitable | BSE/TSE-Free

6. PACKAGING

Inner Packaging: Food-grade PE liner (50-80 µm thickness)

Outer Packaging: Multilayer kraft paper bag, plastic woven bag, or fiber drum

Net Weight: 25 kg / bag (standard), 20 kg / carton (for food service), 500 kg / jumbo bag (bulk orders)

Pallet Configuration: 40 bags per pallet (1000 kg net)

Container Loading: Approximately 20,000 kg per 20' FCL

Custom Packaging: Available upon request (custom weights, labeling)

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 data, samples, or customized grades, please contact CAG.

This product data sheet provides typical technical data and should be used for initial product evaluation. Specifications are based on international standards for E 440. Actual values may vary slightly depending on harvest season and production batch. For formulation support or custom grade requirements, please contact our technical team..