



## PENBOND® 1000 cationic additive

33730100

PENBOND® 1000 cationic additive is a medium charged, cationic polymer for the wet-end of a paper machine that develops dry tensile strength. Improved dry tensile allows papermakers to use more cost-effective fiber, or reduce refining to positively impact bulk and softness. Additional benefits include improved machine performance related to gains in speed, drainage, retention and drying.

### Product Specifications

	Min.	Max.
pH (as received)	3.2	3.8
Active Solids, %	29.0	31.0

### Physical Properties

	Typical
Color	Light Brown
Form	Liquid
Specific Gravity*	1.132
Density* (Lbs/Gallon)	9.42
Dry Lbs Starch/Gallon*	2.83

### Viscosity

Brookfield*, cps (#5 Spindle/20 RPM/25°C)	3,000 – 4,500
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\* Data is a profile of typical batches. Actual data may vary from data listed above.

### Preparation

PENBOND® 1000 cationic additive can be used neat for emulsions or be prepared for paper machine system application by dilution with water in a ratio of 1 part liquid starch to up to 30 parts water. Metering equipment is available for a trial period upon request.

### Features and Applications

The addition point will vary based on the impact of other additives and furnish conditions. PENBOND® 1000 cationic additive has been applied effectively at addition points ranging from the blend chest to the headbox. Technical Service Representatives are available to assist with product application.

### Certification

Kosher pareve

### Packaging and Storage

PENBOND® 1000 cationic additive is packaged in returnable tote bins and bulk tank trucks. PENBOND® 1000 cationic additive must be stored above 50°F in a clean, dry area away from heavily aromatic material.

### Shelf Life

The best before date for PENBOND® 1000 cationic additive is 3 months from the date of manufacture.

### Regulatory Data

Source Waxy Corn

### United States

FDA 21 CFR 176.170 Contact with Paper

FDA 21 CFR 176.180 Paper & Board in Contact with Dry Food

### Labeling:

No FDA label required.  
No GHS Hazard Symbols required.  
Not Classified by GHS criteria  
No GHS signal word needed.  
No GHS Hazard Statement needed.  
No GHS Precautionary Statement needed.

### Canada

F&DR Part B Division 23 Food Packaging Materials

### Labeling: None

Effective Date: May 29, 2025

Next Review Date: May 29, 2028

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