

# VINNAPAS® 323



## Polymer Dispersions

VINNAPAS® 323 is a poly(vinyl alcohol) stabilized vinyl acetate-ethylene copolymer dispersion with a glass transition temperature (T<sub>g</sub>) of +23 °C. It was developed as a fast setting, high heat resistant dispersion with fully hydrolyzed PVOH compatibility.

## Properties

VINNAPAS® 323 is designed for use as a base for high-speed packaging applications. It exhibits excellent wet tack, speed of set and medium plasticizer thickening response. Because of its poly(vinyl alcohol) stabilization and excellent mechanical stability, this dispersion can be used in a variety of roll, extruder, or spray applications. The dry film is tack free and heat sealable. This dispersion is compatible with both fully and partially hydrolyzed alcohol. The very good water resistance can be enhanced when the dispersion is compounded with fully hydrolyzed alcohol. Having the highest T<sub>g</sub>, this dispersion exhibits the highest heat resistance, high tensile strength, and moderate flexibility.

## Specific features

- Produced without APEO

## Technical data

### Specification

Property	Condition	Value	Method
Solids content	-	54.0 - 56.0 %	specific method
Viscosity, dynamic	25 °C	1300 - 2300 mPa·s	specific method
pH	-	5.0 - 6.0	specific method
Grit 100 Mesh	-	max. 50 ppm	specific method

### General Characteristics

Property	Condition	Value	Method
Density	-	1.05 g/cm <sup>3</sup>	specific method
Frost resistance	-	protect from freezing	specific method
Protective colloid / emulsifier system	-	polyvinyl alcohol	-
Glass transition temperature	-	approx. 23 °C	DSC, specific method
Dry tack	-	none	specific method
Film clarity	-	slightly hazy	specific method
Flexibility	-	fair	specific method
Mechanical stability	-	excellent	specific method
Thickening response	-	medium	specific method
Water resistance	-	High	specific method
Wet tack	-	high	specific method

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Protect against frost.

## Applications

- Paper Packaging & Converting
- Building Components

- Flooring Installation

## Application details

VINNAPAS® 323 is a versatile base for the adhesive formulator. This dispersion is compatible with other poly(vinyl alcohol) and surfactant stabilized vinyl acetate-based dispersions and acrylic copolymers. It is compatible with rubber latices, water based urethane dispersions, solvents, plasticizers, and other modifiers. Water resistance can be improved when formulated with fully hydrolyzed poly(vinyl alcohol) with which it is compatible, plasticizers, solvents, or crosslinking agents.

VINNAPAS® 323 is a versatile base for adhesive formulators with the rheology that makes it suitable for use in a variety of high speed packaging applications such as corrugated case sealing. With good water resistance, it is suited for but not limited to applications such as bag seams, corrugated case forming and sealing, carton forming, and cup forming. Strong wet tack allows this dispersion to be used in collating. The combination of heat resistance and water resistance makes VINNAPAS® 323 a solid ingredient in adhesive formulations designed for laminations of porous substrates, e.g., paper or board to wood products.

## Packaging and storage

### Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. If stored in the original, unopened containers at cool (below 30 °C), but frost-free temperatures the product has a shelf life of 9 months from the date of manufacture. Any longer periods for the maximum storage period that may be described in the Certificate of Analysis which accompanies each shipment of the product, take preference over this suggestion in which case the time period stated in the Certificate of Analysis shall be solely authoritative. Iron or galvanized-iron equipment and containers are not recommended because the dispersion is slightly acidic. Corrosion may result in discoloration of the dispersion or its blends when further processed. Therefore, the use of containers and equipment made of ceramics, rubberized or enameled materials, appropriately finished stainless steel, or plastic (e.g. rigid PVC, polyethylene or polyester resin) is recommended. As polymer dispersions may tend to superficial film formation, skins or lumps may form during storage or transportation. Filtration is therefore recommended prior to utilization of the product.

### Preservation for Transport, Storage and further Processing

The product is adequately preserved during transportation and storage if kept in the original, unopened containers. However, if it is transferred to storage tanks, the dispersion should be protected against microbial attack by adding a suitable preservative package. To maintain proper storage conditions appropriate measures should also be taken to ensure cleanliness of the tanks and pipes. In a storage tank in which the product is not stirred, it is advisable to contact your biocide representative/supplier. Proper procedures must be set up in order to prevent microbial attack between necessary periodic tank cleaning and sanitization. These procedures will vary, since loading and unloading practices in each storage situation will differ slightly. Finished products manufactured from polymer dispersions usually also require preservation. The type and scope of preservation will depend on the raw materials used and the anticipated sources of contamination. The compatibility with other components and the efficacy of the preservative should always be tested in the respective formulation. Preservative manufacturers will be able to advise you about the type and dosage of preservative required.

## Safety notes

Comprehensive instructions are given in the corresponding Safety Data Sheets. These are available on request from WACKER sales offices or may be downloaded from the WACKER Web site [www.wacker.com/vinnapas](http://www.wacker.com/vinnapas).

## QR Code VINNAPAS® 323



**For technical, quality or product safety questions, please contact:**

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