

VINNAPAS® 323

Product description

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

Properties

VINNAPAS® 323 dispersion 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 total residual vinyl acetate monomer content is less than 1,000 ppm.

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_g , this dispersion exhibits the highest heat resistance, high tensile strength, and moderate flexibility.

Application

VINNAPAS® 323 dispersion 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.

Processing

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.

Storage

When VINNAPAS® 323 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 VINNAPAS® 323 dispersion has a shelf life of 6 months. 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.

Preservation for Transport, Storage and further Processing

VINNAPAS® 323 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 piping. In a storage tank in which VINNAPAS® 323 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.

Additional information

If VINNAPAS® 323 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® 323 is the sole responsibility of the purchaser. All legal and other regulations must be complied with.

For questions concerning food contact status

according to chapter 21 CFR (US FDA) and German BfR, please contact:

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Germany

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER sales offices or may be printed via WACKER web site www.wacker.com/vinnapas.

Product data		
Specification data	Inspection Method	Value
Solids content	02CM170	54,0 – 56,0
Viscosity	AM622	1300 – 2300 mPa.s
pH-Value	AM631	5,0 – 6,0
VAM by Head Space GC	93CRS038	999 ppm max.
Grit 100 Mesh	AM701	50 ppm max.
Typical general characteristics	Inspection Method	Value
Density	WACKER method	1,05 g/cm ³
Wet tack	WACKER method	High
Mechanical Stability	WACKER method	Excellent
Thickening Response	WACKER method	Medium
Freeze/Thaw Stability	WACKER method	Protect from freezing
Glass transition temperature DSC	WACKER method	approx. +23 °C
Water Resistance	WACKER method	Good
Film Clarity	WACKER method	Slightly Hazy
Dry Tack	WACKER method	None
Flexibility	WACKER method	Fair

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

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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

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