

VINNAPAS[®] EZ 222

Polymer Dispersions

VINNAPAS[®] EZ 222 is a hydroxyethyl cellulose/surfactant stabilized vinyl acetate-ethylene (VAE) copolymer dispersion with a glass transition temperature (T_g) of +18.0°C. It was developed to offer excellent sprayability and clear, flexible, water-resistant films.

Properties

- Excellent scrub resistance
- Good flow and leveling
- Low viscosity
- High solids content
- Excellent mechanical stability
- Good wet tack
- Good adhesion to polar and nonpolar surfaces
- Good flow and leveling
- Produced without the use of APEOs

Technical data

Specification

Property	Condition	Value	Method
pH	-	4.0 - 5.0	specific method
Viscosity, dynamic	25 °C Brookfield, spindle 2 / 20 rpm	100 - 1000 mPa-s	specific method
Solids content	-	54.0 - 56.0 %	specific method
Grit 100 Mesh	-	max. 100 ppm	specific method

General Characteristics

Property	Condition	Value	Method
Glass transition temperature	-	approx. 18 °C	specific method
Predominant particle size	-	approx. 400 nm	specific method
Freeze thaw stability	-	poor	specific method
Density	-	1.09 g/cm ³	specific method
Dry tack	-	none	specific method
Film clarity	-	clear	specific method
Flexibility	-	excellent	specific method
Mechanical stability	-	excellent	specific method
Thickening response	-	moderate	specific method
Water resistance	-	excellent	specific method
Wet tack	-	moderate	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

Application details

VINNAPAS® EZ 222 offers good wet tack and speed of set and is fast drying. It has low thickening response to plasticizers and solvents. The hydroxyethyl cellulose (HEC) stabilization, low viscosity, high solids content, and excellent mechanical stability allow this product to have excellent sprayability. VINNAPAS® EZ 222 exhibits good adhesion to polar and nonpolar surfaces. It also heat seals to paper and packaging films at lower temperatures than other dispersions. The dried film is clear, flexible, and exhibits very good water resistance. VINNAPAS® EZ 222 is manufactured without the use of any surfactants or defoamers that contain alkylphenol ethoxylates.

Adhesives Applications

VINNAPAS® EZ 222 has the ability to adhere to a wide variety of surfaces which makes it particularly well suited for many flocking, packaging and laminating applications. VINNAPAS® EZ 222 can be used in adhesives to bond films such as polyvinyl chloride, polyvinylidene chloride, cellulose acetate, polystyrene, and cellophane to porous substrates. It can also be used to bond such widely diversified substrates as leather, paper, cloth (made from natural or synthetic fibers), urethane foam and many types of coated paperboard — notably SBR-coated board and acrylic-coated boards.

Coatings Applications

VINNAPAS® EZ 222 can be used in flat to mid-sheen DIY architectural coatings applications. It provides excellent scrub resistance and the large particle size provides good flow and leveling. Furthermore, the dispersion can be used in intumescent coatings formulations.

Processing

VINNAPAS® EZ 222 is compatible with dextrin and does not coagulate in the presence of borax. It is compatible with other VINNAPAS® VAE dispersions, poly(vinyl acetate), and vinyl acrylic copolymer dispersions. VINNAPAS® EZ 222 can also accept high levels of various additives, including rubber lattices, while maintaining a workable viscosity.

Plasticizers and tackifying resins generally used with VAE and poly(vinyl acetate) and copolymer dispersions can be used with VINNAPAS® EZ 222. The thickening response of VINNAPAS® EZ 222 to solvents and plasticizers is low. Thickening can be accomplished using such materials as hydroxyethyl cellulose or polyacrylic acid-acrylamide copolymer resins. VINNAPAS® EZ 222 will accept high loadings of such fillers as calcium carbonate and clay without appreciably changing the viscosity.

Packaging and storage

Storage

When VINNAPAS® EZ 222 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® EZ 222 has a shelf life of 9 months from the date of manufacture. 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

VINNAPAS® EZ 222 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 VINNAPAS® EZ 222 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® EZ 222 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® EZ 222 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:

Wacker Chemie AG
Hanns-Seidel-Platz 4
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Safety notes

Comprehensive instructions are given in the corresponding Material 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.

QR Code VINNAPAS® EZ 222



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

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