

VINNAPAS[®] EF 104



Polymer Dispersions

VINNAPAS[®] EF 104 is a surfactant-stabilized vinyl acetate-ethylene copolymer (VAE) dispersion with a glass transition temperature (T_g) of 14 °C. It is a high performance, cost competitive polymer dispersion binder for paperboard and specialty paper coating applications.

Properties

- Good formulated rheology response at high coating solids.
- Good dry pick. - Good to excellent wet pick performance.
- Excellent paper and ink stability.
- Superior opacity and brightness.
- Provides a more open coating for blister resistance during printing.
- Can be formulated to deliver superior sheet gloss, ink gloss, and smoothness.
- Excellent bonding by aqueous and hot melt adhesives.
- Manufactured without the use of alkylphenol ethoxylate (APEO) surfactants or formaldehyde donors.

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	54.0 - 56.0 %	specific method
Viscosity, dynamic	25 °C	50 - 800 mPa·s	specific method
pH	-	4.5 - 5.5	specific method
Grit 100 Mesh	-	max. 50 ppm	specific method

General Characteristics

Property	Condition	Value	Method
Density	-	1.08 g/cm ³	ISO 2811
Predominant particle size	-	approx. 230 nm	specific method
Glass transition temperature	-	approx. 14 °C	DSC, specific method
Mechanical stability	-	excellent	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.

Applications

- Paper & Paperboard Coating

Application details

Processing

VINNAPAS® EF 104 can be formulated with typical paper coating pigments, thickeners, lubricants and other binder chemistries to provide the best balance of coated paper and paperboard properties.

Additional information

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

For questions concerning food contact status according to the chapter 21 CFR (US FDA) and German BfR, please feel free to contact us.

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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 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® EF 104



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

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