

VINNAPAS® EF 818



Polymer Dispersions

VINNAPAS® EF 818 is an aqueous dispersion of a vinyl acetate-ethylene (VAE) copolymer. It does not need a coalescing agent or plasticizer to achieve a low minimum film forming temperature. VINNAPAS® EF 818 is produced without the use of alkyl phenol ethoxylate (APEO) containing compounds. It offers a cost competitive alternative for a variety of technologies, including vinyl acrylics and styrene acrylics.

Properties

- Very good touch-up properties
- Excellent scrub resistance
- Improved alkali resistance
- Good response to associative thickeners
- Very low residual VAM (< 200 ppm)
- Allows for formulations without coalescing solvents
- Produced without the use of APEOs

Technical data

Specification

Property	Condition	Value	Method
Viscosity, dynamic	25 °C	150 - 650 mPa·s	specific method
pH	-	4.0 - 6.0	specific method
Solids content	-	54.0 - 56.0 wt. %	specific method

General Characteristics

Property	Condition	Value	Method
Residual monomer (vinyl acetate)	-	max. 0.05 %	specific method
Density	20 °C	approx. 1.07 g/cm ³	specific method
Predominant particle size	-	0.19 - 0.26 µm	specific method
Glass transition temperature	-	approx. 7 °C	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

- Interior Paints & Coatings

Application details

Properties

As a broad application binder for architectural coatings, VINNAPAS® EF 818 provides a variety of benefits for the coatings formulator.

- It is alkylphenol ethoxylate (APEO) free meaning it does not use any surfactants or defoamers that contain APEO.
- It is manufactured without the use of any formaldehyde donors.
- It is very low in residual vinyl acetate monomer (VAM) at <0.05% and capable for end products with low content of volatile organic compounds.
- It has a low glass transition temperature (T_g) and minimum film formation temperature (MFFT) which provide the polymer with a very low to no cosolvent demand for proper film formation

VINNAPAS® EF 818 continues the standard for scrub resistance set by VAE copolymers as evidenced by evaluations of several different formulations that show it outperforming both conventional and low VOC latexes. This allows paint formulators to develop paints with extremely high levels of scrub resistance. VINNAPAS® EF 818 offers early water resistance. It can also be formulated over a broad range of PVC's successfully replacing styrene acrylics. VINNAPAS® EF 818 exhibits excellent thickener response with a number of different thickener types, including hydrophobically modified cellulosic (HMHEC), hydrophobic ethoxylated urethanes (HEUR), and hydrophobic alkali-swellable emulsions (HASE). With the growing trend of low odor paints, it is becoming more important that the polymers used in formulations can be formulated at lower solvent levels without sacrificing performance. Many commercial binders used today, especially conventional styrene acrylics, suffer significantly in performance when formulated at lower solvent levels. VINNAPAS® EF 818 requires little to no coalescing solvent, which allows formulators to develop high performance coatings with very low odor. The reduction in solvent provided by formulating with VINNAPAS® EF 818 compared with conventional styrene acrylics can deliver additional raw material cost savings.

Application

VINNAPAS® EF 818 represents the next in a line of VAEs that is positioned as an alternative to styrene acrylics and other technologies in the architectural coatings industry.

Processing

Specific formulating tips are available upon request and in the future will be available in the Formulation Guidelines bulletin on the WACKER web site.

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 the chapter 21 CFR (US FDA) and German BfR, please feel free to contact us.

Wacker Chemie AG Hanns-Seidel-Platz 4 D-81737 München Germany

Packaging and storage

Packaging

- 200 Kg Steel drum
- 220 Kg Steel drum
- 1 MT IBC
- 1.1 MT IBC
- 1 MT Returnable tote
- Flexi bag.
- Tank lorry

Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. The product has a shelf life of 9 months starting from the date of manufacture if stored in the original, unopened containers at temperatures between 5 and 30°C. 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. Measures should also be taken to ensure cleanliness of the tanks and pipes. In unstirred tanks, a layer of preservative-containing water should be sprayed onto the surface of the dispersion to prevent the formation of unwanted skin and possible attack by microorganisms. The thickness of this water layer should be < 5 mm for low viscosity dispersions and up to 10-20 mm for high viscosity products. Proper procedures - periodic tank cleaning and sanitization - must be set up in order to prevent microbial attack. Contact your biocide representative/supplier for further plant hygiene recommendations. Measures should be taken to ensure that only clean air enters the tank when the dispersion is removed. 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. If the product is stored for a longer period, stirring is recommended before use.

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 818



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

Wacker Chemie AG, Hanns-Seidel-Platz 4, 81737 Munich, Germany
productinformation@wacker.com, www.wacker.com

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