

# VINNAPAS® EF8300

## Product description

VINNAPAS® EF8300 is an aqueous dispersion of a vinyl acetate-ethylene (VAE) copolymer. It was developed as a higher performance polymer for interior architectural coating formulations with environmental advantages. This technology can replace a variety of technologies including:

- Vinyl acrylic/acrylic blends
- Vinyl acrylics with wet adhesion
- Pure acrylics

## Properties

As a broad application binder for architectural coatings, VINNAPAS® EF8300 combines excellent performance (including good block resistance, scrub resistance, and wet adhesion) with the ability to formulate low VOC paints (<5g/l).

With the ever-tightening restrictions on the permissible level of VOCs in coatings, it is becoming more important that the polymers used can be formulated at lower solvent levels without sacrificing performance. Many commercial binders used today, especially conventional vinyl acrylics and pure acrylics, suffer significantly in performance when formulated at lower solvent levels. VINNAPAS® EF8300 requires little to no coalescing solvent, which allows formulators to develop high performance coatings even in low VOC paints.

VINNAPAS® EF8300 is in compliance with any major foreseeable requirements in the coatings industry:

- It does not use any surfactants or defoamers that contain alkylphenol ethoxylates (APEOs).
- It is manufactured without the use of any formaldehyde donors.
- It is very low in residual vinyl acetate monomer (VAM) at <200ppm and therefore enables the formulation of low volatile organic compounds (VOCs) coatings.
- It has a low glass transition temperature (T<sub>g</sub>) and minimum film formation temperature (MFFT) which provide the polymer with a very low to no cosolvent demand for proper film formation.

## Application

VINNAPAS® EF8300 was designed to provide a high performance product (where properties such as block resistance, stain resistance, and wet adhesion/water resistance are desired while still maintaining good scrub resistance) with environmental advantages. It has application in contractor and Do-it-Yourself (DIY) products and is recommended for flat through semi-gloss finishes.

VINNAPAS® EF8300 is positioned to replace competitive technologies such as vinyl acrylics, acrylics, and blend systems in interior architectural applications. VINNAPAS® EF8300 is also very compatible with other latex dispersions and can be blended with other polymers such as high T<sub>g</sub> pure acrylics to provide excellent block resistance and wet adhesion – properties that are necessary in very high end coatings.

## 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.

## Storage

When VINNAPAS® EF8300 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® EF8300 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® EF8300 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® EF8300 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® EF8300 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® EF8300 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  
D-81737 Munich  
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](http://www.wacker.com/vinnapas).

**Product data**

Specification data	Inspection Method	Value
Solids content	specific method	54.0 - 56.0 %
Viscosity, dynamic	specific method	150 - 650 mPa.s
pH-Value	specific method	4.0 - 5.0
Residual monomer (vinyl acetate)	specific method	max. 0.02 %

  

Typical general characteristics	Inspection Method	Value
Density	specific method	approx. 1.07 g/cm³
Predominant particle size	specific method	approx. 170 - 240 nm
Glass transition temperature DSC	specific method	approx. 6 °C

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

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<p>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.</p>	<p>The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001</p> <p>WACKER is a trademark of Wacker Chemie AG. VINNAPAS® is a trademark of Wacker Chemical Corporation.</p>	<p>For technical, quality, or product safety questions, please contact:</p> <p>Wacker Chemical Corporation 3301 Sutton Road Adrian, Michigan 49221-9397, USA</p>
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