

VINNAPAS® EF500

Product description

VINNAPAS® EF500 is a fine particle size, aqueous dispersion of a vinyl acetate-ethylene (VAE) copolymer developed to provide a versatile base for paints and other flexible coatings.

Properties

VINNAPAS® EF500 dispersion is a flexible polymer, highly plasticized internally, with a fine particle size. These properties combine to give it such good intrinsic coalescing ability – even at low temperatures – that little or no additional coalescing agent is needed.

A conventional latex paint usually must contain 1.0 to 2.0% coalescing agent by total formula weight in order to fuse properly. The coalescing agent in a VINNAPAS® EF500 latex-based paint can be significantly reduced or even eliminated entirely in some cases. This can cut the raw material cost of the paint without affecting performance. Even at the reduced level of coalescing agent, paints made with VINNAPAS® EF500 emulsion polymer will give better low-temperature fusion than most other emulsions containing a higher level of coalescent.

VINNAPAS® EF500 latex-based paints have the excellent touch-up properties necessary for interior application by homeowners or contractors – another benefit of the coalescing ability of the polymer. Touch-up without lapping or ghosting is more easily obtainable with VINNAPAS® EF500 latex-based paints than those made from conventional vinyl acrylics, under both room temperature and low-temperature conditions.

The best conventional vinyl acrylic paint latices usually have critical PVCs in the neighborhood of 50 to 60%. These critical PVCs are exceeded by VINNAPAS® EF500 latex-based formulations, because of the emulsion polymer's high pigment-binding capacity. This feature can be used to advantage in either one of two ways: the amount of emulsion in any given paint formulation can be reduced, thereby cutting costs, but still yielding paints of at least equal quality; or the emulsion can be kept at the same level to provide improved performance.

Application

VINNAPAS® EF500 dispersion possesses an intrinsic coalescing ability which minimizes the need for external

coalescing agents and yields excellent touch-up properties particularly in contractor flat paints. Combined with high critical PVC and excellent freeze-thaw stability, these properties make VINNAPAS® EF500 dispersion an excellent vehicle for low to zero VOC interior paint.

Processing

Specific formulating tips are available upon request and can be found in the *Formulation Guidelines* bulletin on the WACKER web-site.

Storage

When VINNAPAS® EF500 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® EF500 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® EF500 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® EF500 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® EF500 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® EF500 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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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	54.5 - 56.0 %
Viscosity, Brookfield LVF#3 @60rpm, 25°C	AM622	300 - 800 cPs
pH-Value	AM631	5.0 – 6.0
VAM by Head Space GC	AM624	<0.5% max.

Typical general characteristics	Inspection Method	Value
Density	WACKER method	1.06 g/cm ³
Predominant particle size	WACKER method	approx. 150 - 190 µm
Glass transition temperature DSC	WACKER method	approx. +5 °C

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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