VINNAPAS® EP 8178

VINNAPAS®

Polymer Dispersions

VINNAPAS® EP 8178 is a poly(vinyl alcohol) stabilized vinyl acetate-ethylene (VAE) copolymer dispersion with a glass transition temperature (Tg) of approximately - 3 °C. It was developed as a high performance, ultra-high solids dispersion for weather-resistant air barriers with excellent water resistance, ideal mechanical properties and high extender loading capability.

Properties

VINNAPAS® EP 8178 is manufactured to an ultra-high solids content of 70 percent while maintaining a viscosity range of 1200-2700 mPa.s. This combination of high solids and moderate viscosity allows formulators to prepare very unique high solids products. The low Tg allows formulators to minimize the use of coalescents or plasticizers.
VINNAPAS® EP 8178 is produced without the use of any surfactants or defoamers that contain alkylphenol ethoxylates (APEOs). No formaldehyde or formaldehyde donors are intentionally added.
Specific features

- Breathability
- Water resistance
- Flexible and tough
- Low VOC capable
- Low formaldehyde content
- Produced without APEO

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	69.5 - 71.5 %	specific method
Viscosity, dynamic	25 °C	1200 - 2700 mPa·s	specific method
pH	-	4.5 - 5.5	specific method

General Characteristics

Property	Condition	Value	Method
Density	-	1.05 g/cm^3	specific method
Glass transition temperature	-	-3	DSC, specific method

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

Protect against frost.

Application details

Vapor Permeable Membranes
VINNAPAS® EP 8178 is vapor permeable in low- and high-humidity environments but remains resistant to bulk water, such as from wind-driven rain. Moreover, it provides excellent tensile strength and elongation at break, which is not diminished by immersion in water. This improves resistance to crack formation following exposure to weathering.
Liquid-applied barrier coatings can be easily sprayed or roller-applied to residential or commercial structures to form a continuous protective layer. VINNAPAS® EP 8178 can be used for creating high-solids, rapidly drying formulations with no additional plasticizers or coalescing agents.

Packaging and storage

Storage

When VINNAPAS® EP 8178 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® EP 8178 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® EP 8178 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® EP 8178 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 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® EP 8178

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