VINNAPAS® EP 710

VINNAPAS®

Polymer Dispersions

VINNAPAS® EP 710 is a high-viscosity, low formaldehyde and low free VAM residue vinyl acetate ethylene copolymer dispersion. VINNAPAS® EP 710 exhibits good machinability and strong wet tack. It does provide better adhesion to films such as polyvinyl chloride. It also has very high plasticizer / solvent viscosity thickening responses.

Properties

- VINNAPAS® EP 710 is chemically stable at both high and low pH.
- It is compatible with an assortment of resins, solvents, plasticizers and other modifiers as well as the other VINNAPAS ® EP dispersions.

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	> 54.5 %	DIN EN ISO 3251
Viscosity, dynamic	25 °C	4400 - 5400 mPa·s	DIN EN ISO 2555
pH	-	4.0 - 6.0	DIN/ISO 976
Formaldehyde	-	< 15 ppm	specific method
Residual monomer (vinyl acetate)	-	< 100 ppm	GC

General Characteristics

Property	Condition	Value	Method
Density	20 °C	approx. 1.07 g/cm^3	ISO 2811
Minimum film forming temperature	-	0 °C	DIN ISO 2115
Frost resistance	-	protect from freezing	-
Protective colloid / emulsifier system	-	polyvinyl alcohol	-
Filler and pigment compatibility	-	very good	specific method
Appearance of the dispersion film	-	clear, glossy	Visual
Surface of the dispersion film	-	slight dry tack	specific method
Elongation at break	-	approx. 600 %	DIN EN ISO 527-3
Glass transition temperature	-	approx. 0 - 4 °C	specific method
Predominant particle size	-	approx. 1 µm	specific method
Tensile strength	-	approx. 6.0 N/mm^2	DIN EN ISO 527-3

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

Applications

- Film-to-Wood lamination
- Paper Packaging & Converting

Application details

VINNAPAS® EP 710 is especially suitable for the application of low formaldehyde and low free VAM residue. VINNAPAS® EP 710 offers several advantages in relatively slow-speed PVC laminating applications because of its higher starting viscosity. VINNAPAS® EP 710 bonds such widely diversified substrates as paper, wood, cotton cloth, nylon cloth, hardboard, urethane foam and certain types of coated paperboard. Typical application fields of VINNAPAS® EP 710 are as follows:

- Packaging (window cartons and carton forming)
- Bookbinding
- Textiles and Upholstery
- PVC lamination and OPP lamination

The high plasticizer/solvent viscosity thickening response of VINNAPAS® EP 710 is very useful to develop various high-performance waterborne adhesives with one VAE copolymer dispersion.

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

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. Please refer to "Best use before date" on the packaging label. Storage beyond the date specified does not mean that the product can´t be used anymore, but the user should perform a quality check on the properties necessary for the intended application. 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.

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® EP 710

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

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