

VINNAPAS® EP 6411

Polymer Dispersions

VINNAPAS® EP 6411 is an aqueous, 50 % dispersion of a copolymer of vinyl acetate and ethylene. It is produced without the use of plasticizers. The product is in the process of introduction into industrial use. Therefore the product data given are subject to change. Always consult WACKER POLYMERS about the product's availability before using it for industrial purposes.

Properties

- Good adhesion to various plastic surfaces
- Permanently flexible adhesive joints
- High cohesion

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	49.0 - 51.0 %	specific method
Viscosity, dynamic	25 °C	4000 - 6000 mPa·s	specific method
pH	-	4 - 6	specific method

General Characteristics

Property	Condition	Value	Method
Density	20 °C	approx. 1.065 g/cm ³	specific method
Minimum film forming temperature	-	0 °C	specific method
Frost resistance	-	protect from freezing	-
Predominant particle size	-	approx. 1000 nm	specific method
Protective colloid / emulsifier system	-	PVOH	-
Filler and pigment compatibility	-	excellent	specific method
Appearance of the dispersion film	-	clear, glossy	Visual
Glass transition temperature	-	approx. 3 °C	specific method
Appearance	-	milky, white	Visual

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

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

Application details

Properties

VINNAPAS® EP 6411 is a suitable raw material for adhesives, preferably for bonding plastic films and paper. Notable features are high heat resistance, good adhesion to various plastic surfaces, permanently flexible adhesive joints, fast setting and good machine running characteristics.

Application

General

VINNAPAS® EP 6411 can be used to produce adhesives which achieve bonds to remain permanently flexible and resistant to ageing. Such adhesives are noted for their very good adhesion even to usually difficult to stick plastic or varnished surfaces. Because of the variety of surfaces encountered, pre-trials to check the adhesion to the surfaces to be bonded should always be undertaken. The base polymer of VINNAPAS® EP 6411 shows a high cohesive strength even at elevated temperatures and therefore VINNAPAS® EP 6411 can be used to produce adhesives with very good heat resistance. Suitable formulated adhesives based on VINNAPAS® EP 6411 show a rapid increase in bond strength even after only a short setting time. It should be emphasized that VINNAPAS® EP 6411 is almost low on odor.

Special

VINNAPAS® EP 6411 can be used as a raw material for:

- PVC furniture foils adhesives which show particularly high bond strength at elevated temperatures. Because of the variation in the bonding properties of foils, pre-trials should be undertaken to check the adhesion, especially at low temperatures.
- Adhesives for laminating plastic films, especially plasticized PVC, to cardboard, paper, textiles and leather for book covers, office files, high quality packaging and cases.
- Adhesives for the production and sealing of varnished and coated cartons und packaging.

As VINNAPAS® EP 6411 is produced without the use of plasticizers it offers particular advantages when the bonded parts get in contact with products which are sensitive to plasticizers. For example varnished and printed surfaces or where packaged goods are not allowed to contact plasticizer containing adhesive joints.

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.

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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® EP 6411



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

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The data presented in this medium 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 medium 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 information provided by us does 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 product for a particular purpose.