

VINNAPAS[®] DPN 36T



Polymer Dispersions

VINNAPAS[®] DPN 36T is a self-crosslinking, aqueous dispersion based on the monomer vinyl acetate. It is produced without the use of plasticizers.

Properties

- VINNAPAS[®] DPN 36T can be used for a hard textile finish to adjust the handle or as a nonblocking component for hard, sealable coatings.
- VINNAPAS[®] DPN 36T is especially suitable as a binder for glass fiber fabrics.

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	51 - 53 %	DIN EN ISO 3251
Viscosity, dynamic	23 °C	18000 - 32000 mPa·s	DIN EN ISO 2555
pH	-	4.0 - 6.0	DIN/ISO 976

General Characteristics

Property	Condition	Value	Method
Density	23 °C	approx. 1.1 g/cm ³	DIN EN ISO 2811-3
Minimum film forming temperature	-	approx. 2 °C	DIN ISO 2115
Frost resistance	-	protect from freezing	specific method
Protective colloid / emulsifier system	-	polyvinyl alcohol	-
Appearance of the dispersion film	-	matt	Visual
Surface of the dispersion film	-	dry	-
Elongation at break ⁽¹⁾	-	approx. 200 %	DIN EN ISO 527, part 1 - 3
Glass transition temperature	-	approx. 28 °C	specific method
Cold break temperature	-	approx. 15 °C	DIN EN 1876, part 2
Predominant particle size	-	approx. 1.0 µm	specific method
Tensile strength ⁽²⁾	-	approx. 12.0 N/mm ²	DIN EN ISO 527, part 1 - 3

¹(crosslinked)

²(crosslinked)

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

- Stiffening agents

Application details

General

The binder can be applied by bath impregnation and roller coating devices. When properly crosslinked at temperatures over 130 °C, VINNAPAS® DPN 36T exhibits very good wet strength. In special cases, the addition of 0.1-1.0 % diammonium phosphate may be added to accelerate the crosslinking reaction.

Processing

Polymer Dispersions

VINNAPAS® DPN 36T can be mixed with most of the VINNAPAS®- and VINNOL®-dispersions and with many other aqueous polymer dispersions in all proportions. However, the compatibility of the mixture should be tested by undertaking a storage test.

Fillers and Pigments

If VINNAPAS® DPN 36T is to be pigmented, pH-value natural pigments or fillers should be used to avoid disturbing the crosslinking reaction which takes place in the acid pH-value range. Their efficacy and compatibility in the formulation chosen should always be checked. Solvents and Plasticizers Almost all solvents can be mixed with VINNAPAS® DPN 36T in limited amounts, provided that the appropriate safety precautions are observed: aromatic hydrocarbons, chlorinated hydrocarbons, esters, ketones and alcohols. Watersoluble solvents should be diluted with water before they are added, in order to prevent coagulation.

Defoaming Agents

Suitable defoaming agents are, for example 1)SILFOAM® SE 1662, 2)Foamaster® WO 2310. Their efficacy and compatibility in the formulation chosen should always be checked.

1) SILFOAM® is a trademark of Wacker Chemie AG

2) FOAMASTER® is a trademark of BASF SE

Thickening Agents

Suitable thickeners are 3) SELVOLTM (polyvinyl alcohol), 4)HDK®, cellulose derivatives, polyacrylic acid derivatives and bentonite. Their efficacy and compatibility should always be checked. It should be remembered that such additives can affect the adhesion and machine running properties.

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2) FOAMASTER® is a trademark of BASF SE

3) SELVOL® is a trademark of Sekisui Chemical Co., Ltd.

4) HDK® is a trademark of Wacker Chemie AG

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

Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. VINNAPAS® DPN 36T has shelf life of 6 months starting from the date of receipt 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 accompanies each shipment of VINNAPAS® DPN 36T, 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 resins) is recommended. As polymer dispersion 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® DPN 36T 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 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® DPN 36T



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

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