

# VINNAPAS® EN 1165

## Product Description

VINNAPAS® EN1165 is an aqueous, APE- free, self crosslinking copolymer dispersion of vinyl acetate and ethylene. It is particularly suited as a moderately soft binder for nonwoven applications requiring superior wet tensile strength performance.

## Properties

VINNAPAS® EN1165 may be used as a binder in nonwoven applications where soft hand and wet tensile properties are required. The dispersion is stabilized with an APE-free surfactant system and offers good solvent resistance.

## Application

VINNAPAS® EN1165 dispersion can be applied by a number of different application methods including saturation, spraying, foaming and print bonding.

VINNAPAS® EN1165 performs well on various fiber types including cellulose, rayon, glass, and polyester based substrates. This dispersion is especially suited for use in absorbent products and pre-moistened wipes.

## Processing

Formulating recommendations include the addition of catalyst and a wetting surfactant. Catalysts should be added to the dispersion as a 10% solution under good agitation. Typical catalysts include ammonium chloride or sodium bisulfate. A 1% catalyst level (solids on solids dispersion) is sufficient to achieve complete crosslinking of the polymer. Surfactants can be also be added to VINNAPAS® EN1165 to improve penetration of the binder into the substrate and improve absorbency of the finished product. Effective surfact levels are 0.5 to 1.0% on dispersion solids.

## Storage

When VINNAPAS® EN1165 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® EN1165 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® EN1165 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® EN1165 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® EN1165 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® EN1165 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:

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
D-81737 Munich  
Germany

**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](http://www.wacker.com/vinnapas).

<b>Product data</b>		
<b>Specification data</b>	<b>Inspection Method</b>	<b>Value</b>
Solids content	WACKER method	51,5 – 52,5 %
Viscosity, Brookfield LVF#3 @60rpm, 25°C	WACKER method	300 - 800 mPa.s
pH-Value	WACKER method	5,3 – 6,3
<b>Typical general characteristics</b>	<b>Inspection Method</b>	<b>Value</b>
Density	WACKER method	1,06 g/cm <sup>3</sup>
Appearance	WACKER method	white fluid dispersion
Particle charge	WACKER method	anionic
Glass transition temperature DSC	WACKER method	approx. 0 °C
Residual monomer	WACKER method	<0,1 % maximum
Mechanical stability	WACKER method	excellent

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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