

# VINNAPAS® 404 ND

## Product description

VINNAPAS® 404 ND is a dispersion designed to be used as a bonding agent.

## Properties

VINNAPAS® 404 ND is a protective colloid stabilized vinylacetate ethylene dispersion.

## Application

VINNAPAS® 404 ND has good water resistance. It meets ASTM C 1059 - 86 requirements for Type I and Type II Redispersible Latex Bonding agents. Additionally, VINNAPAS® 404 ND meets the bond test requirements of ASTM C 932 Section 9. VINNAPAS® 404 ND offers a good balance of adhesive / cohesive properties, which is advantageous in the use as general purpose bonding agent. For typical application fields of VINNAPAS® 404 ND you can refer to the following application table. Please discuss additional applications with your WACKER customer representative.

Application	Recommendation	Suitability
Primers	General purpose primers	●
● highly recommended    ○ recommended		

## Processing

VINNAPAS® 404 ND can be blended with most anionic and/or nonionic aqueous polymer dispersions. However, the compatibility of the mixture should be tested by means of storage tests. VINNAPAS® 404 ND has a minimum film formation temperature of 10°C. Therefore, there is no need to add any film-forming or coalescing agents to the formulation.

## Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. VINNAPAS® 404 ND has a shelf life of 6 months starting from the date of receipt if stored under cool (below 25 °C) but frost-free conditions in the original, unopened containers. Iron or

galvanized iron containers and equipment are not recommended, because the dispersion is slightly acidic. Corrosion could result in discoloration of the dispersion or blends made from it in further processing. We therefore recommend the use of containers and equipment made of ceramic, rubberized or enameled materials, appropriately finished stainless steel, or plastic (rigid PVC, polyethylene or polyester resin).

## Preservation for transport, storage and further processing

VINNAPAS® 404 ND is adequately preserved during transportation and storage if kept in the original, unopened containers. When stored in tanks, the dispersion should be modified with a preservative to prevent microbial contamination. Suitable measures should be taken to ensure that the tanks are properly clean. In storage tanks in which the product is not stirred, it is advisable to cover the surface of the dispersion with 1 - 2 cm of water, to which a preservative has been added. This will prevent skin formation and microbial contamination. In the case of storage in silos, it is important that the air drawn into the silo when the product is discharged is also kept free of germs. As a rule, all finished products manufactured from polymer dispersions also require preservation. The type and extent of preservation will depend on the raw materials used and the anticipated sources of contamination. The compatibility and effectiveness of the preservatives should be checked for a given formulation. Preservative manufacturers will be able to advise you on the type and amount of conservation agent to use.

## Packaging

Please contact Wacker Chemical Corporation for packaging and shipping information.

In case of industrial usage, please confirm delivery times. If larger amounts are required, please give advance notification.

For more commercial and technical information please contact a Wacker Chemical Corporation representative.

Wacker Chemical Corporation

6870 Tilghman Street  
Allentown, PA 18106-9346  
USA

Technical Center Allentown  
Tel. +1 800 523-9476  
Fax +1 517 264-4088  
dispersions.customerservice@wacker.com

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

### Additional information

If VINNAPAS® 404 ND is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® 404 ND is the sole responsibility of the purchaser. All legal and other regulations must be complied with.

### Safety notes

Comprehensive instructions are given in the appropriate Material Safety Data Sheets. These are available on request from WACKER sales offices.

### Product data

Specification data	Inspection Method	Value
Solids content	specific method	54.0 - 56.0 %
Viscosity, dynamic	BROOKFIELD	1300 - 2300 mPa.s
pH-Value	ASTM E 70	5.0 - 6.0

Typical general characteristics	Inspection Method	Value
Minimum film forming temperature	specific method	10 °C
Predominant particle size		850 nm
Protective colloid / emulsifier system	specific method	protective colloid
Compatibility with cement	specific method	suitable for bond-coat application only
Appearance of the dispersion film	Visual	clear
Glass transition temperature	ASTM D 3418	approx. 23 °C

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

WACKER is a trademark of Wacker Chemie AG.  
VINNAPAS® is a trademark of Wacker Chemical Corporation.

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

Wacker Chemical Corporation  
3301 Sutton Road  
Adrian, MI 49221-9397, USA