

# VINNAPAS® 4040 E



## Dispersible Polymer Powders

VINNAPAS® 4040 E is a dispersible polymer powder for dry mix mortars, specifically suited for waterproofing membranes. It is based on a flexible copolymer of vinyl acetate and ethylene. VINNAPAS® 4040 E belongs to the product class VINNAPAS® E which means that it provides enhanced properties like improved workability and superior mechanical properties (e.g. crack-bridging or tensile-adhesion strength), particularly in formulations with high polymer content and/or low cement content.

## Properties

- VINNAPAS® 4040 E is a copolymer powder of vinyl acetate and ethylene that is dispersible in water.
- The high ethylene content makes the resin soft and elastic. Its glass transition temperature is below the freezing point of water.
- VINNAPAS® 4040 E is stabilized with polyvinyl alcohol and a cationic high-molecular-weight polymer.
- Compounds modified with VINNAPAS® 4040 E exhibit improved adhesion, flexural strength, deformability, abrasion resistance and better workability.
- VINNAPAS® 4040 E is ideal for highly polymer-modified cementitious dry-mix mortar formulations. Tremendous ease of processing, excellent adhesion and high flexibility are obtained (e.g. high capacity to bridge sealing-slurry cracks, and high deformability in tile adhesives).
- VINNAPAS® 4040 E contains a fine mineral filler as an anticaking agent. It is produced without the use of organic solvents, plasticizers and film-forming agents.
- VINNAPAS® 4040 E is a dispersible polymer powder with a Tg in the lower range and no effect on rheological properties. It is eminently suitable for formulating highly flexible, low emission compounds with very good adhesion to mineral and organic substrates.

## Technical data

### Specification

Property	Condition	Value	Method
Bulk density	-	450 - 600 kg/m <sup>3</sup>	DIN EN ISO 60
Ash content	1000 °C	max. 10 %	specific method
Particle size	> 400 µm	max. 4 %	DIN EN ISO 4610
Solids content	-	min. 98 %	DIN EN ISO 3251

### General Characteristics

Property	Condition	Value	Method
Appearance	-	white to light beige powder	Visual
Minimum film forming temperature	-	0 °C	DIN ISO 2115
Protective colloid / emulsifier system	-	Polyvinyl alcohol and cationic, high-molecular-weight polymer	-

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

- Adhesive and Embedding Mortars
- Mineral Renders & Plasters
- One Component Cementitious Waterproofing Membrane
- Tile Grouts

## Application details

For typical application fields of VINNAPAS® 4040 E, refer to the section "application". Please discuss additional applications with your WACKER customer representative.

## Processing

For the production of ready-mixed dry mortars, such as adhesives and patching compounds, blend VINNAPAS® 4040 E with the other dry ingredients in appropriate equipment. Temperatures should not be allowed to rise excessively during mixing because otherwise the dispersible polymer powder could agglomerate by virtue of its thermoplastic properties. The mortar is prepared for use by adding the recommended amount of water and mixing mechanically or by hand. Since hand mixing generates little shear force, we recommend allowing the fresh mortar to slake for 5 minutes and then stirring it again. This is usually unnecessary where mechanical mixers are employed.

### Additional information

If the product is used in applications other than those mentioned, the choice, processing and use of it is the sole responsibility of the purchaser. All legal and other regulations must be complied with. Slight color variations of the polymer granulate may occur without impairing the product's functionality.

## Packaging and storage

### Packaging

25 kg paper bags Big Bags or bulk on request.

### Storage

During storage, protect the product from contact with moisture. Prolonged storage at temperatures above 30 °C, especially in combination with pressure, humidity or exposure to sunlight, may result in blocking. Carefully seal any open containers and store them under suitable conditions. We recommend storing the product in a warehouse that provides cool and dry conditions. Do not store the product for more than six months, starting from the date at which it was received, unless the Certificate of Analysis contains a different date, which would take precedence. If the product is stored longer than recommended, it may still be used but users are advised to verify the properties required for the intended 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](http://www.wacker.com/vinnapas). In particular, please observe the dust explosion safety data when manufacturing highly-modified dry-mix mortars.

## QR Code VINNAPAS® 4040 E



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

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