

# VINNAPAS® 4040 E (Scale-up Product)

## Product description

VINNAPAS® 4040 E (Scale-up Product) is a very flexible dispersible polymer powder based on vinyl acetate and ethylene characterized by excellent workability and crack-bridging. The product is in the process of introduction into industrial use (Scale-up Product). 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

VINNAPAS® 4040 E (Scale-up Product) 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 (Scale-up Product) is stabilized with polyvinyl alcohol and a cationic high-molecular-weight polymer. Compounds modified with VINNAPAS® 4040 E (Scale-up Product) exhibit improved adhesion, flexural strength, deformability, abrasion resistance and better workability. VINNAPAS® 4040 E (Scale-up Product) 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 (Scale-up Product) contains a fine mineral filler as an anticaking agent. It is produced without the use of organic solvents, plasticizers and film-forming agents.

## Special features

VINNAPAS® 4040 E (Scale-up Product) 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.

## Application

For typical application fields of VINNAPAS® 4040 E (Scale-up Product), refer to the following application table. Please discuss additional applications with your WACKER customer representative.

Application	Recommendation	Suitability
Waterproofing membranes	Flexible systems	●
	Rigid systems	○
● highly recommended    ○ recommended		

## Processing

For the production of ready-mixed dry mortars, such as adhesives and patching compounds, blend VINNAPAS® 4040 E (Scale-up Product) 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.

## Storage

VINNAPAS® 4040 E (Scale-up Product) should be stored in a cool place (<25°C), protected against moisture and not subject to pressure. We recommend that the storage time should not exceed 6 months from receipt of delivery. Storage beyond the date specified does not necessarily mean that the material is unusable, but the user should perform a quality check on the properties necessary for the intended application.

Blends with, for example, hydraulic binders, fillers and pigments show better storage stability. However, blends of this type still have to be protected against moisture.

## Packaging

25 kg paper bags  
Big Bags or bulk on request.

## Additional information

If VINNAPAS® 4040 E (Scale-up Product) is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® 4040 E (Scale-up Product) is the sole responsibility of the purchaser. All legal and other regulations must be complied with.

Slight color variations of the dispersible polymer

powder may occur without impairing the product's functionality.

## 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.

## Product data

Specification data	Inspection Method	Value
Solids content	DIN EN ISO 3251	min. 98 %
Ash Content (1000 °C)	specific method	max. 10 %
Bulk density	DIN EN ISO 60	450 - 600 kg/m <sup>3</sup>
Particle size	DIN EN ISO 4610	max. 4 % over 400 µm
Typical general characteristics	Inspection Method	Value
Appearance	Visual	white to light beige powder
Protective colloid / emulsifier system		Polyvinyl alcohol and cationic, high-molecular-weight polymer
Minimum film forming temperature	DIN ISO 2115	0 °C

Figures below "Typical general characteristics" are intended as a guide and should not be used in preparing specifications.

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.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

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