

WACKER

CREATING TOMORROW'S SOLUTIONS

VINNAPAS®

DISPERSIBLE POLYMER POWDERS | ETICS |
WESTERN AND EASTERN EUROPE, TURKEY, MIDDLE EAST

VINNAPAS® 4121 N:
THE PERFECT FIT FOR ETICS



MAKE THE MOVE TO VAE WITH VINNAPAS® 4121 N

VINNAPAS® 4121 N is part of WACKER's portfolio of polymer powders and dispersions based on vinyl acetate-ethylene (VAE) which are known for their combination of high technical performance and low environmental impact.

Advantages of VINNAPAS® VAE grades:

High Application Performance

- Adhesion to different substrates
- Flexibility, e.g. for greater elongation or crack-bridging
- Workability, e.g. smooth, easy application, long open time
- Water resistance and low water uptake
- Durability, e.g. high color-fastness

Environmental Benefits

- Polymerized without the use of APEO-containing substances
- No external plasticizer required
- By using VINNAPAS® VAE products, you can meet the requirements of European eco labels, such as Blue Angel and EMI-CODE® EC1 plus – contingent on the dosage level

Attractive Cost-in-Use

- Time saving, material saving
- Longer renovation cycles

More Info

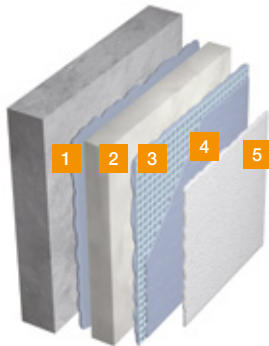
Since the 1960s WACKER has been developing copolymer dispersions and dispersible polymer powders based on vinyl acetate and ethylene. Today we offer you an outstanding portfolio of VINNAPAS® VAE products with many advantages. To find out more, please go to www.wacker.com/move

MAKING ENERGY SAVING MORE COST EFFICIENT

External thermal insulation composite systems (ETICS) are a popular way to insulate the walls of a building in order to increase energy efficiency. A crucial point for ETICS is the secure bonding of the composites to one another and the substrate. With VINNAPAS® 4121 N there is now a highly functional solution for cost efficient formulations.

Typical Structure of an External Thermal Insulation Composite System (ETICS)

- 1 Adhesive Mortar
- 2 Thermal Insulation Panel
- 3 Glassfiber Mesh
- 4 Base Coat
- 5 Renders and Paints



WITH IMPROVED TECHNICAL PROPERTIES

Very Good Adhesion to Difficult Substrates

With VINNAPAS® 4121 N it is possible to achieve significantly better adhesion on Expandable Polystyrene (EPS) compared to market products for example based on VAc/VeoVa. The adhesion to concrete is also improved considerably.

Even in Very Dry Conditions

The climate in Central Eastern Europe is characterized by long dry periods. Mortars modified with VINNAPAS® 4121 N show very good adhesion under these conditions.

For Cost Efficient Solutions

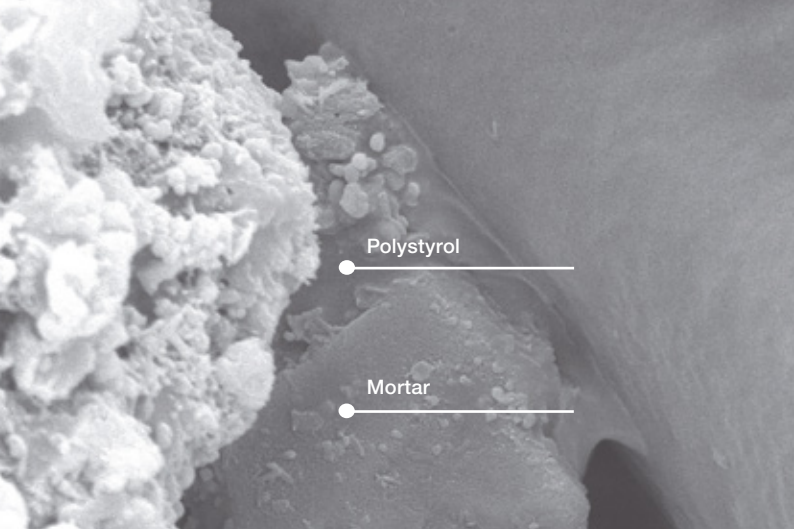
The increased adhesion has another positive effect: it means that less dispersible polymer powder is needed. This reduces the overall formulation cost of the adhesive mortar, making ETICS more cost efficient.

Application Range

VINNAPAS® N grades in general provide a high degree of formulation freedom. VINNAPAS® 4121 N is recommended especially for ETICS adhesive mortars and also embedding mortars due to its flexibility provided by ethylene. VINNAPAS® 4121 N also performs well in C1 CTAs and can cover other dry-mix applications.

Product Data of VINNAPAS® 4142 N

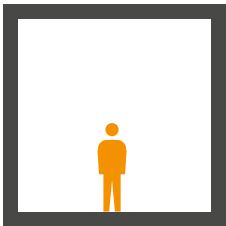
Polymer base	Vinyl acetate/ethylene
Protective colloid system	PVOH
Minimum film-forming temperature	1 °C
Product class / effect	N = neutral
Flexibility	Semi-flexible



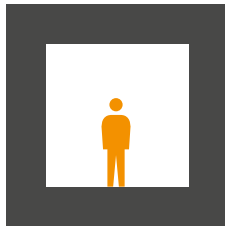
Mortar Electron microscopy reveals that the polymer resin domains are chiefly responsible for producing the secure bond between the expanded polystyrene board and the cementitious mortar.

Insulating Effect of Different Building Materials

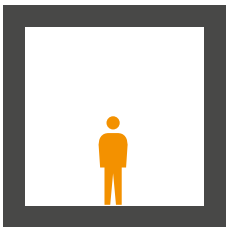
Minimum thickness needed for an U Value of $\leq 0.24 \text{ W/m}^2\text{K}^1$



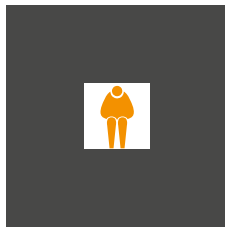
WLG032 external thermal insulation composite system (ETICS) with EPS:
Thickness needed is 13 cm



Brick wall (vertically perforated brick):
Thickness needed is 160 cm



Insulation plaster: Thickness needed is 31 cm



Concrete wall: Thickness needed is 800 cm

¹Calculations by Wacker Chemie AG

The Wacker logo consists of the word "WACKER" in a bold, black, sans-serif font, enclosed within a white rectangular box with a thin black border. The background of the entire advertisement is a photograph of a multi-story building with yellow and orange facades and white window frames.

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