

WACKER

CREATING TOMORROW'S SOLUTIONS

VINNAPAS®

VINNOL®

PRIMIS®

ARCHITECTURAL COATINGS | POLYMER DISPERSIONS | SOUTH AMERICA

PRODUCT OVERVIEW

POLYMER CHEMISTRY – A KEY TO QUALITY

Polymer binders enhance two critical characteristics of all mortars and coatings: adhesion and flexibility. They ensure the quality of buildings and prolong their life expectancy while reducing material consumption. At the same time, they increase creative freedom by making it possible to combine a wide variety of construction materials.

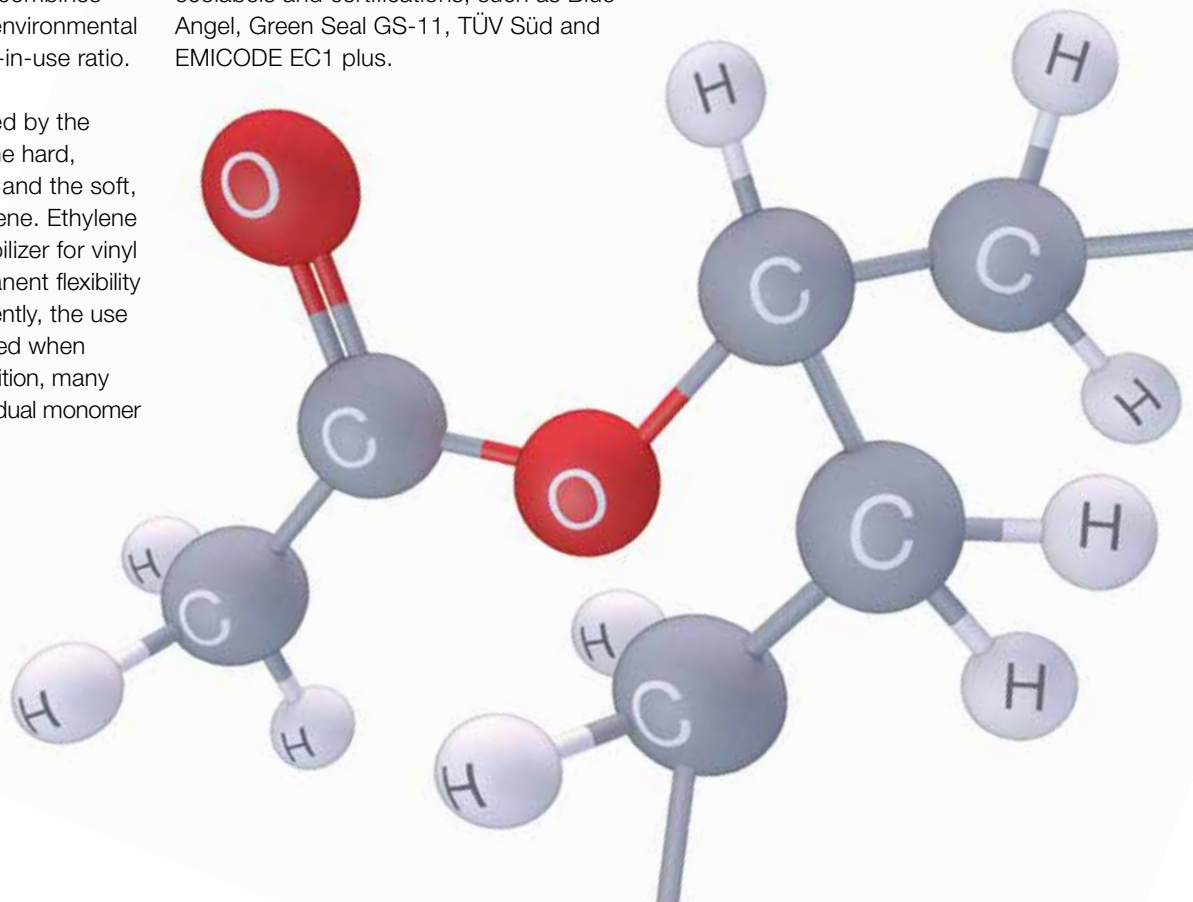
Vinyl Acetate-Ethylene (VAE) – Serving the Megatrends of Today and Tomorrow

VINNAPAS® dispersions are co- and terpolymers based on vinyl acetate, ethylene and other monomers. Vinyl acetate-ethylene (VAE), in particular, combines technical performance with environmental benefits at an attractive cost-in-use ratio.

VAE dispersions are produced by the emulsion polymerization of the hard, polar monomer vinyl acetate and the soft, hydrophobic monomer ethylene. Ethylene functions as an optimal flexibilizer for vinyl acetate, incorporating permanent flexibility into VAE polymers. Consequently, the use of plasticizers can be minimized when formulating with VAEs. In addition, many of our products show low residual monomer content (<500 ppm).

Compliance with Strict Labels

With our cutting-edge VINNAPAS® VAE binders, the construction and paints industries are equipped to meet stringent governmental regulations, as well as the requirements of internationally recognized ecolabels and certifications, such as Blue Angel, Green Seal GS-11, TÜV Süd and EMICODE EC1 plus.



THE FAST TRACK – PRODUCT FINDER

| Grade | Typical General Properties ¹ | | | | | | | | | |
|-------------------------|---|-------------------------------------|-------------------------------|----------|---|---|---|-----------------------|----------------------|-----------------------------------|
| | Polymer Base ² | Solids Content ±1% ³ [%] | Viscosity, Brookfield [mPa·s] | pH Value | Glass Transition Temperature T _g (DSC) ⁵ [°C] | Minimum Film-Forming Temperature [°C] (ISO 2115) ⁵ | Predominant Particle Size ⁵ [µm] | Produced without APEO | Low-VOC Formulations | Stabilization System ⁴ |
| VINNAPAS® EF 8001 | VAc-E | 55 | 150–650 | 4.0–5.0 | 6 | 0 | 0.21 | Yes | ● | ST |
| VINNAPAS® EF 8300 | VAc-E | 55 | 100–500 | 4.0–5.0 | 6 | 0 | 0.21 | Yes | ● | ST |
| VINNAPAS® EP 3360 (ULS) | VAc-E | 60 | 3,000–6,000 | 5.0–8.0 | 10 | 2 | 0.50 | Yes | ● | PVOH & ST |
| VINNOL® 728 | VAc-E-VC | 53 | 100–500 | 5.0–6.5 | 0 | 0 | 0.17 | No | ● | ST |
| VINNAPAS® EZ 3112 | VAc-E-VE | 50 | 1,800–4,000 | 4.5–5.5 | 3 | 0 | 0.40 | Yes | ● | CD & ST |
| VINNOL® 4530 | E-VC | 50 | 25–500 | 7.0–9.0 | 29 | 34 | 0.11 | Yes | | ST |
| VINNOL® 4514 | E-VC | 50 | 25–150 | 7.0–9.0 | 12 | 14 | 0.13 | Yes | | ST |
| PRIMIS® SAF 9000 | S-A | 42 | 50–500 | 6.5–7.5 | 21 | 13 | < 0.1 | Yes | ● | ST |
| VINNAPAS® 224 HD | S-A | 50 | 6,000–12,000 | 7.5–8.5 | 20 | 12 | 0.1 | Yes | | ST |
| VINNAPAS® 240 HD | S-A | 50 | 700–3,000 | 7.0–8.0 | 0 | 0 | 0.1 | Yes | ● | ST |

¹ These figures are only intended as a guide and are not part of supply specifications.

² VAc = vinyl acetate
A = acrylate
E = ethylene
S = styrene
VC = vinyl chloride
VE = VERSA® vinyl ester

³ Residue after drying

⁴ PVOH = polyvinyl alcohol
CD = cellulose derivative
ST = surfactant

⁵ Approximately

● Highly recommended

THE PERFECT FIT – RECOMMENDATION BY APPLICATION

| Grade | Recommended Applications | | | | | | | | | |
|-------------------------|--------------------------|----------------------------------|----------------------------|----------------------|---------------------------------|----------------------|--------------------------|---------|------------------------|---------------|
| | Interior Paints Flat | Interior Paints Satin/Semi-Gloss | Interior Paints High Gloss | Easy-to-Clean Paints | Exterior Paints House & Masonry | Intumescent Coatings | Flame-Retardant Coatings | Primers | Vapor-Barrier Coatings | Roof Coatings |
| VINNAPAS® EF 8001 | ● | ○ | | | ○ | | | ○ | | |
| VINNAPAS® EF 8300 | ● | ● | ○ | | ○ | | | | | |
| VINNAPAS® EP 3360 (ULS) | ● | ○ | | | ● | | | ○ | | |
| VINNOL® 728 | ○ | | | | ● | | ○ | ○ | ● | ● |
| VINNAPAS® EZ 3112 | | | | | | ● | | | | |
| VINNOL® 4530 | | | | | | | ● | ● | ● | |
| VINNOL® 4514 | | | | | | | ● | ● | ● | |
| PRIMIS® SAF 9000 | | | | ● | ● | | | ● | | |
| VINNAPAS® 224 HD | | | | | | | | ● | | |
| VINNAPAS® 240 HD | | | | | | | | ● | | |

● Highly recommended ○ Recommended

Interior Paints

| Grade | Product Benefit | Performance Attributes | | |
|-------------------------|---|------------------------|-------------------|------------------|
| | | Scrub Resistance | Gloss Development | Block Resistance |
| VINNAPAS® EF 8001 | Very low-VOC, low-odor architectural paint binder, optimal for flat interior paints, also perfect for blending. | ● | ○ | ○ |
| VINNAPAS® EF 8300 | Very low-VOC, low-odor architectural paint binder, optimal for satin/semi-gloss interior paints. | ● | ● | ● |
| VINNAPAS® EP 3360 (ULS) | Excellent scrub resistance and high solids content, supports modern manufacturing processes. | ● | ○ | ○ |

Easy-to-Clean Paints

| Grade | Product Benefit | Performance Attributes | | |
|------------------|--|------------------------|-----------------------|----------------------------------|
| | | Stain Resistance | Resistance to Pick-Up | Compatibility with Other Binders |
| PRIMIS® SAF 9000 | High-performance additive used as a co-binder to increase stain resistance and easy-to-clean properties of low to medium PVC interior paints. Compatible with a broad range of main binders. | ● | ● | ● |

Exterior Paints

| Grade | Product Benefit | Performance Attributes | | | | | | |
|-------------------------|---|----------------------------|----------------------------------|-------------|-----------------|-------------------------------------|------------------|------------|
| | | Resistance to Dirt Pick-Up | Hydrophobicity/ Water Resistance | Flexibility | Color Stability | Saponification/ Alkaline Resistance | Flame Resistance | Durability |
| VINNOL® 728 | Low-VOC binder for exterior and specialty coatings. | ● | ● | ● | ● | ● | ○ | ● |
| VINNAPAS® EP 3360 (ULS) | High solids content product with excellent performance in high PVC paints. | ○ | ○ | ○ | ● | ● | | ○ |
| PRIMIS® SAF 9000 | High-performance additive used as a co-binder to reduce snail trails and leeching of water-soluble additives in general. Compatible with a broad range of main binders. | ● | ● | N.A. | N.A. | N.A. | N.A. | N.A. |

● Excellent ○ Good

Intumescent Coatings

| Grade | Product Benefit | Performance Attributes | | | |
|-------------------|---|------------------------|---------------------------|--|-------------------------------------|
| | | Foam Development | Foam Stability/ Integrity | Paint Storage Stability under Demanding Conditions | Dry Film Thickness (DFT) Efficiency |
| VINNAPAS® EZ 3112 | Premium binder that combines maximum performance with an extremely broad range of applications. | ● | ● | ● | ● |

Flame-Retardant Coatings

| Grade | Product Benefit | Performance Attributes | | |
|-------------|--|------------------------|----------------|-------------|
| | | Flame Retardancy | Hydrophobicity | Flexibility |
| VINNOL® 728 | Excellent binder with inherent flame retardancy. | ● | ● | ● |

● Excellent ○ Good

The Wacker logo is displayed in a white rectangular box with a black border. The word "WACKER" is written in a bold, black, sans-serif font.

Wacker Química do Brasil Ltda.
Rua Municipal, 325 (antigo nº 100) - Jd. Alvorada
06612-060 Jandira - São Paulo
Brazil
Tel. +55 11 4789-8300
info.brazil@wacker.com

www.wacker.com
www.wacker.com/move

www.wacker.com/socialmedia



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.