

**WACKER**

CREATING TOMORROW'S SOLUTIONS

VINNAPAS®

VINNOL®

ARCHITECTURAL COATINGS | POLYMER DISPERSIONS | NORTH 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.

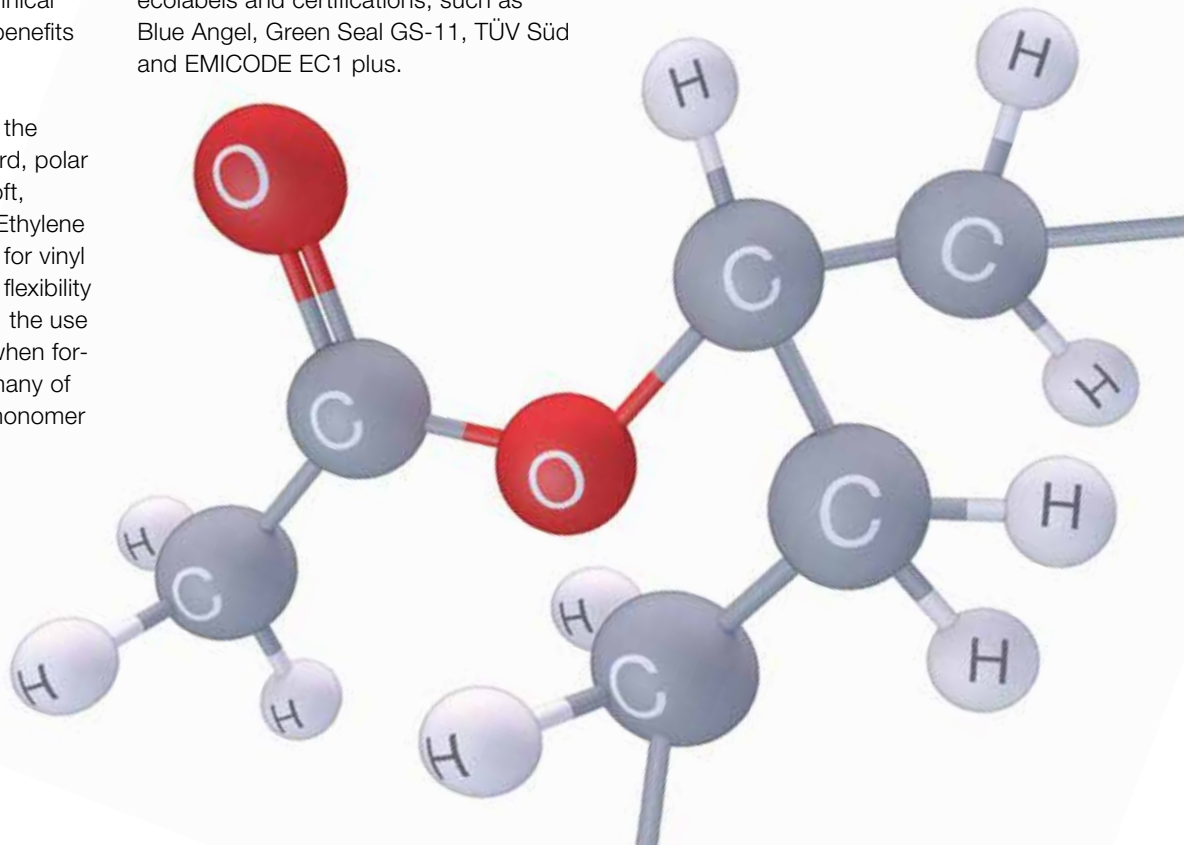
## Vinyl Acetate-Ethylene (VAE) – Serving the Megatrends of Today and Tomorrow

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 paint 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 <sup>1</sup>								
	Polymer Base <sup>2</sup>	Solids Content ±1% <sup>3</sup> [%]	Viscosity, Brookfield [mPa·s]	Glass Transition Temperature T <sub>g</sub> (DSC) <sup>5</sup> [°C]	Minimum Film-Forming Temperature [°C] (ISO 2115) <sup>5</sup>	Predominant Particle Size <sup>5</sup> [μm]	Produced without APEO	Low-VOC Formulations	Stabilization System <sup>4</sup>
VINNAPAS® EF 8001	VAc-E	55	150–650	6	0	0.23	Yes	●	ST
VINNAPAS® EF 8300	VAc-E	55	100–500	6	0	0.2	Yes	●	ST
VINNAPAS® EZ 222	VAc-E	55	100–1,000	18	9	0.4	Yes		CD & ST
VINNAPAS® EZ 3067	VAc-E	55	2,000–7,000	6	1	0.4	Yes	●	CD & ST
VINNAPAS® EZ 3112	VAc-E-VE	50	1,800–4,000	3	0	0.4	Yes	●	CD & ST
VINNOL® 728	VAc-E-VC	53	100–500	0	0	0.17	No	●	ST
VINNOL® 4514	E-VC	50	25–150	12	14	0.13	Yes		ST
VINNOL® 4530	E-VC	50	25–500	29	34	0.11	Yes		ST

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

<sup>2</sup> VAc = vinyl acetate

A = acrylate

E = ethylene

S = styrene

VC = vinyl chloride

VE = VERSA® vinyl ester

<sup>3</sup> Residue after drying

<sup>4</sup> PVOH = polyvinyl alcohol

CD = cellulose derivative

ST = surfactant

<sup>5</sup> Approximately

# THE PERFECT FIT – RECOMMENDATION BY APPLICATION

Grade	Recommended Applications								
	Interior Paints			Exterior House & Masonry Paints	Intumescent Coatings	Flame-Retardant Coatings	Primers	Weather Barrier Coatings	Roof Coatings
	Flat	Satin/Semigloss	High Gloss						
VINNAPAS® EF 8001	●	○		○			○		
VINNAPAS® EF 8300	○	●	○	○					
VINNAPAS® EZ 222	○	○		○	○		○		
VINNAPAS® EZ 3067					●				
VINNAPAS® EZ 3112					●				
VINNOL® 728	○			●		○	○	●	○
VINNOL® 4514						●	●	●	
VINNOL® 4530						●	●	●	

● Highly recommended

○ Recommended

## Interior Paints

Grade	Product Benefit	Performance Attributes		
		Scrub Resistance	Block Resistance	Wet Adhesion
VINNAPAS® EF 8001	Very low-VOC, low-odor architectural paint binder, optimal for flat through mid-sheen interior paints.	▲▲▲		
VINNAPAS® EF 8300	Very low-VOC, low-odor architectural paint binder, optimal for satin/semigloss interior paints.	▲▲	▲▲	▲▲▲

## Exterior Paints

Grade	Product Benefit	Performance Attributes				
		Alkaline Hydrolysis Resistance	Efflorescence Resistance	Low MVTR	Elasticity/Recovery	Fire Retardancy
VINNOL® 728	Low-VOC binder for exterior and specialty coatings.	▲▲▲	▲▲	▲	▲▲▲	▲

▲▲▲ Highly recommended

▲▲ Recommended

▲ Suitable

# WACKER – WE’RE HERE FOR YOU

## Count on Us!

### We Give Our Best

Why do something halfheartedly if you can do it right? To us, quality is not about choosing between an expensive or economic solution. VINNAPAS® polymer binders significantly improve the cost-performance ratio of construction materials.

### We Act Locally

Topography, climate and culture make architecture local by nature. That is why we are local, too. With sales offices, production sites, technical centers and native experts around the globe, we work globally with customers and authorities to develop local solutions.

### We Value Sustainability

In construction, resources are needed for building and maintenance work. Our R&D specialists and application chemists focus on finding answers that conserve resources throughout the entire lifespan of a building.

### We Improve Standards

Quality of life should not be a privilege. We strive to develop and enable solutions that are in balance with human, environmental and economic demands.

### We Keep Inventing

WACKER is one of the most research-intensive companies in its field. We invite you to challenge us with your questions and ideas.

WACKER is a global chemical company with over 100 years of history and a leading portfolio of solutions for the construction, coatings and paint industries. From our beginnings in Burghausen, Germany, we have been continuously developing for decades to become an active partner across the North America region. We maintain a strong production footprint in the region with our plant in Calvert City, Kentucky, which started producing vinyl acetate-ethylene (VAE) dispersions in 1967. Beyond production, we have a technical center located in Allentown, Pennsylvania, where we work closely with customers on their specific requirements.

A photograph of a two-story house with a light-colored stucco exterior and a terracotta tiled roof. The house features a large, white, paneled garage door with a transom window above it. A prominent arched window is visible on the second floor. The house is set against a clear blue sky with some greenery in the background.

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