

**WACKER**

CREATING TOMORROW'S SOLUTIONS

PRIMIS®

VINNAPAS®

CONSTRUCTION | POLYMER DISPERSIONS | INDIA

# PRODUCT OVERVIEW POLYMER DISPERSIONS



# 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.

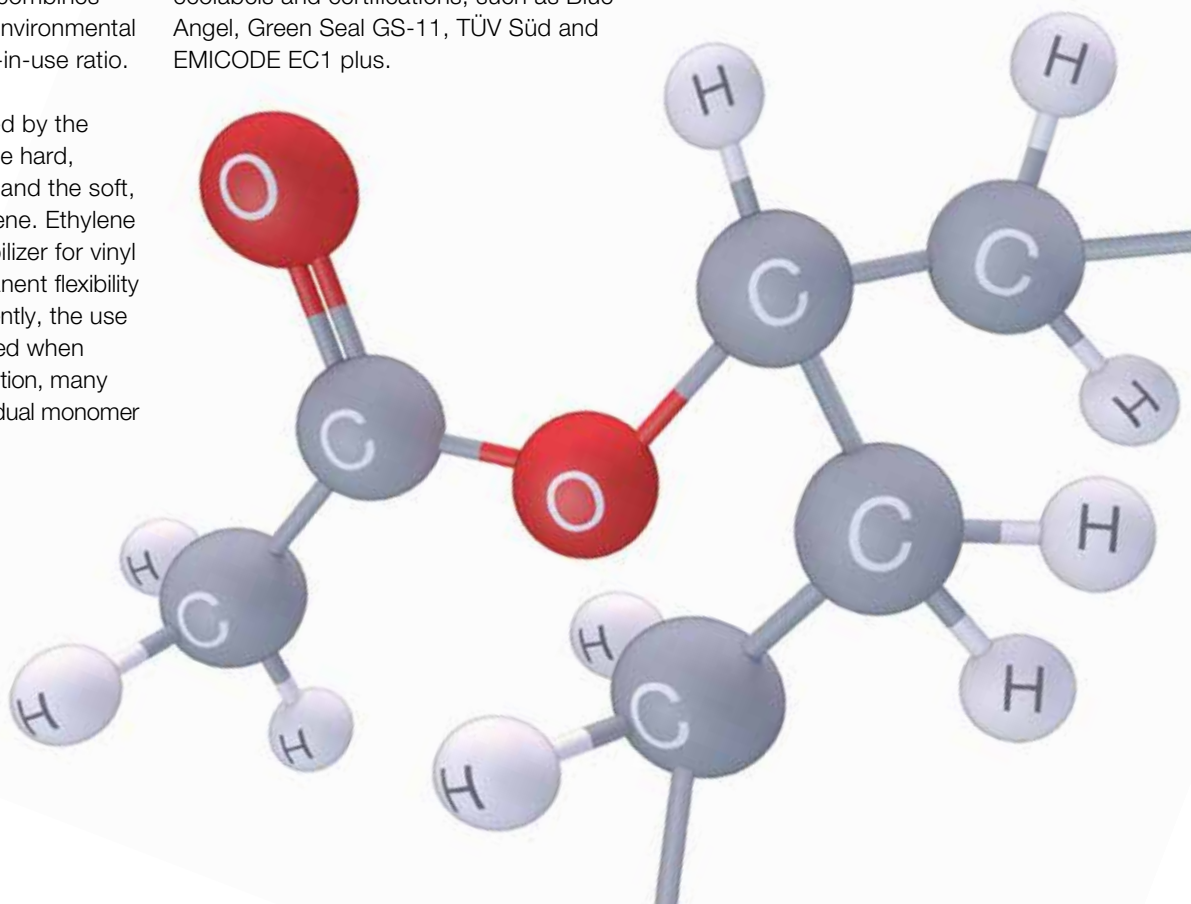
## Vinyl Acetate-Ethylene (VAE) – Serving the Megatrends of Today and Tomorrow

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 <sup>1</sup>							
	Polymer Base <sup>2</sup>	Solids Content ±1% <sup>3</sup> [%]	Viscosity, Brookfield [mPa·s]	pH Value	Glass Transition Temperature T <sub>g</sub> (DSC) <sup>5</sup> [°C]	Minimum Film-Forming Temperature (ISO 2115) <sup>5</sup> [°C]	Predominant Particle Size <sup>5</sup> [µm]	Stabilization System <sup>4</sup>
VINNAPAS® 536 ED	VAc-E	63	200–800	6.0–7.5	7	0	0.5–1.0	PVOH & ST
VINNAPAS® 547 ED	VAc-E	55	1,300–2,000	4.0–6.0	0	0	1	PVOH
VINNAPAS® 561 ED	VAc-E	55	2,000–4,000	4.0–6.0	-10	0	1	PVOH
VINNAPAS® 224 HD	S-A	50	6,000–12,000	7.5–8.5	20	12	0.1	ST
VINNAPAS® 240 HD	S-A	50	700–3,000	7.0–8.0	0	0	0.1	ST
PRIMIS® SAF 9000	S-A	42	50–500	6.5–7.5	21	13	<0.1	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

<sup>3</sup> Residue after drying

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

ST = surfactant

<sup>5</sup> Approximately

Grade	Recommended Applications				
	Waterproofing Membranes	Bonding Agents	Primers/Sealer/Surface Treatment	Cement Admixtures	Tile Adhesive (1K RTU)
VINNAPAS® 536 ED	●	●		○	
VINNAPAS® 547 ED	○	●		●	
VINNAPAS® 561 ED	○	●			
VINNAPAS® 224 HD			●		●
VINNAPAS® 240 HD			●		●
PRIMIS® SAF 9000			●		

● Highly recommended

○ Recommended

# THE PERFECT FIT – RECOMMENDATION BY APPLICATION

## Waterproofing Membranes\*

Grade	Product Benefit	Performance Attributes			
		Adhesion	Elongation	Workability with Cement	Crack Bridging
VINNAPAS® 536 ED	Highly versatile product with excellent crack-bridging properties, adhesion, cohesion and water resistance.	●	●	●	●
VINNAPAS® 547 ED	Standard grade for waterproofing membranes with excellent balance of adhesion and cohesion.	○	○	○	○
VINNAPAS® 561 ED	Highly flexible product with excellent crack-bridging properties recommended for plasticizer-free formulations.	●	○	●	○

\*Passes EN14891 Standard

## Bonding Agents

Grade	Product Benefit	Performance Attributes		
		Dispersability/Compatibility with Cement	Filler Loading	Water Resistance
VINNAPAS® 536 ED	Excellent filler loading capacity and adhesion to smooth surfaces.	●	●	●
VINNAPAS® 547 ED	Standard grade with good bonding to mineral substrates.	○	○	●
VINNAPAS® 561 ED	Low T <sub>g</sub> flexible product with good adhesion and bonding.	○	○	●

## Primers

Grade	Product Benefit	Performance Attributes				
		Penetration	Surface Consolidation	Adhesion on Critical Substrates	Flexibility	Water Resistance
PRIMIS® SAF 9000	Ultra high penetration primer and surface finish.	●	●	●	○	●
VINNAPAS® 224 HD	Proven benchmark for primers.	○	●	●	○	●
VINNAPAS® 240 HD	High-performance primer with broad utility.	●	●	●	●	●

● Excellent ○ Good

## Surface Treatment / Sealer

Grade	Product Benefit	Performance Attributes		
		Stain Resistance	Abrasion Resistance	Hydrophobicity
PRIMIS® SAF 9000	Ultra high penetration with great stain resistance and mechanical stability.	●	●	●

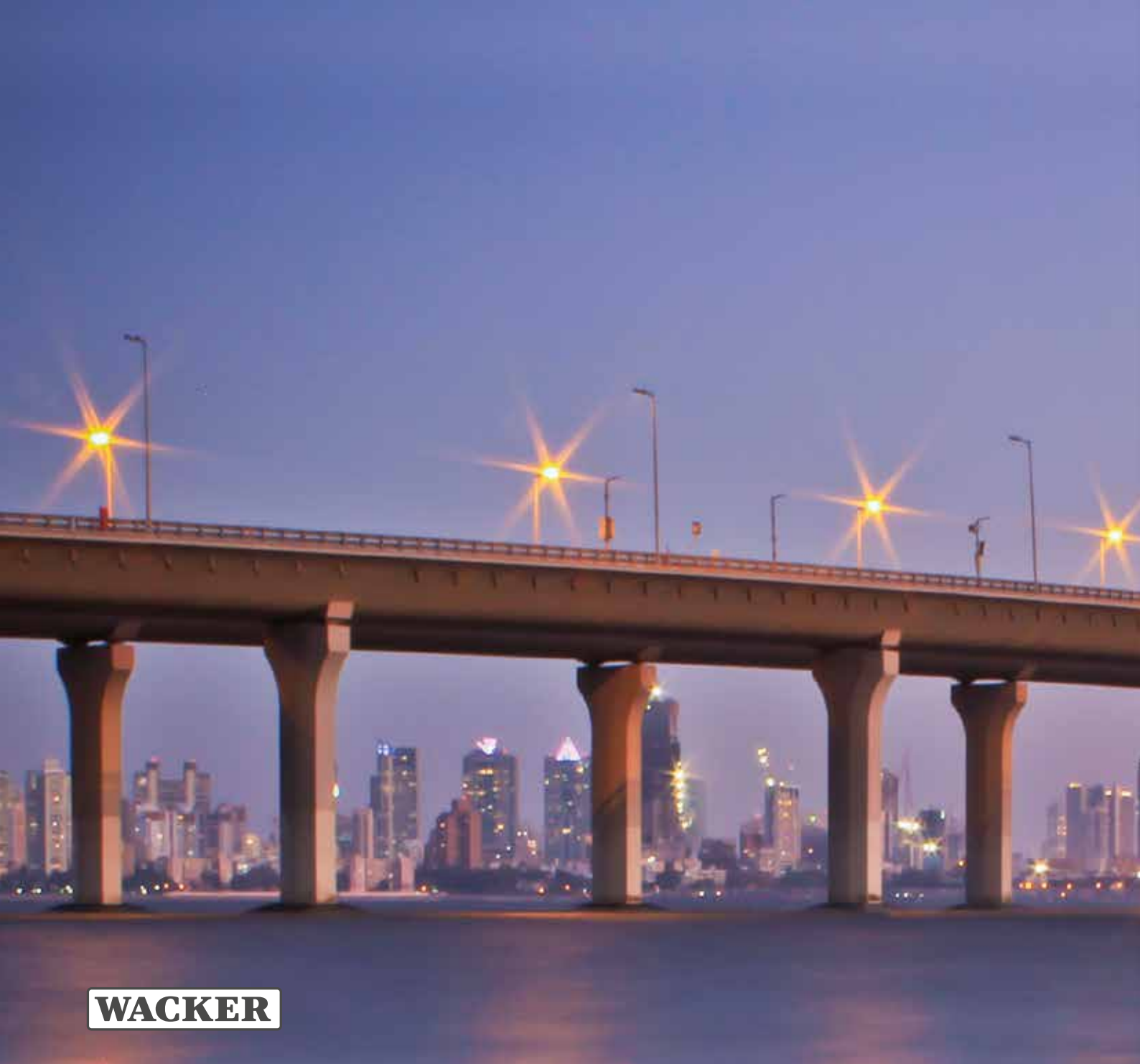
## Cement Admixtures

Grade	Product Benefit	Performance Attributes		
		Adhesion	Compressive Strength	Flexural Strength
VINNAPAS® 536 ED	Excellent flexural and compressive strength.	●	●	●
VINNAPAS® 547 ED	Standard grade with good overall performance.	●	●	○

## Tile Adhesives (1K RTU)

Grade	Product Benefit	Performance Attributes		
		Class D2 (EN 12004)	Filler Load	Slip Resistance
VINNAPAS® 224 HD	The proven benchmark for D2 tile adhesives.	●	●	●
VINNAPAS® 240 HD	Flexible product for ready-to-use tile adhesives.	●	○	○

● Excellent    ○ Good



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