WACKER

CREATING TOMORROW'S SOLUTIONS

PRIMIS®

VINNAPAS®

CONSTRUCTION I POLYMER DISPERSIONS I SOUTH EAST ASIA

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.

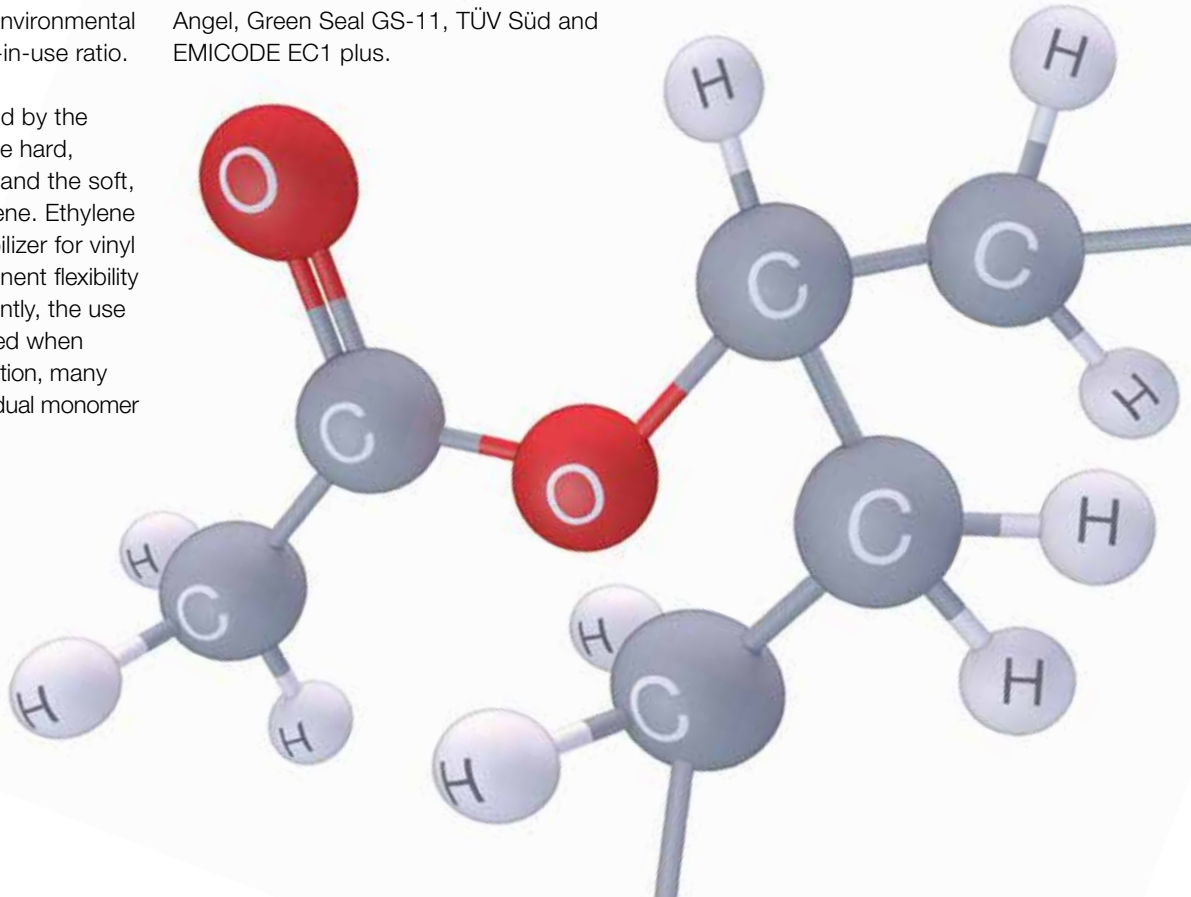
Vinyl Acetate-Ethylene (VAE) – Serving the Megatrends of Today and Tomorrow

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[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 (ISO 2115)[5] [°C]	Predominant Particle Size[5] [µm]	Stabilization System[4]
VINNAPAS® 529 ED	VAc-E	55	2,700–3,700	4.0–6.0	7	0	1	PVOH
VINNAPAS® 536 ED	VAc-E	63	200–800	6.0–7.5	7	0	0.5–1.0	PVOH & ST
VINNAPAS® 546 ND	VAc-E	55	3,500–4,500	4.0–6.0	0	0	1	PVOH
VINNAPAS® 547 ED	VAc-E	55	1,300–2,000	4.0–6.0	0	0	1	PVOH
VINNAPAS® 548 ND	VAc-E	55	4,400–5,400	4.0–6.0	0	0	1	PVOH
VINNAPAS® 224 HD	S-A	50	6,000–12,000	7.5–8.5	20	12	0.1	ST
PRIMIS® SAF 9000	S-A	42	50–500	6.5–7.5	21	13	<0.1	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
[3] Residue after drying
[4] PVOH = polyvinyl alcohol
ST = surfactant
[5] Approximately

Grade	Recommended Applications					
	Waterproofing Membranes	Bonding Agents/ Primers/Surface Treatment	Skim Coat/ Putty/Joint Compounds	Cement Admixtures	Tile Adhesives	Non-combustible EPS
VINNAPAS® 529 ED		●	○	●		
VINNAPAS® 536 ED	●	●	●	●	○	
VINNAPAS® 546 ND						●
VINNAPAS® 547 ED						○
VINNAPAS® 548 ND						●
VINNAPAS® 224 HD		●			●	
PRIMIS® SAF 9000		●				

● Highly recommended ○ Recommended

THE PERFECT FIT – RECOMMENDATION BY APPLICATION

Waterproofing Membranes

Grade	Product Benefit	Performance Attributes			
		Dispersion; Liquid-Applied Water-Impermeable Product (EN 14891)	Cement Mortar CM (EN 14891)	Flexibility	Adhesion on Critical (Esp. Organic) Surfaces
VINNAPAS® 536 ED	High bonding strength and increased flexural strength.	○	○	○	●

Bonding Agents / Primers

Grade	Product Benefit	Performance Attributes				
		Penetration	Surface Consolidation	Adhesion on Mineral Substrates	Flexibility	Water Resistance
PRIMIS® SAF 9000	Ultra high penetration primer and surface finish.	●	●	●	○	●
VINNAPAS® 224 HD	Proven benchmark for primers.	○	●	●	○	●
VINNAPAS® 529 ED	Excellent bonding strength, good filler loading ability and good workability.		●	●	○	○
VINNAPAS® 536 ED	High bonding strength and increased flexural strength.		○	○	○	○

● Excellent ○ Good

Surface Treatment

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

Skim Coat / Putty / Joint Compounds

Grade	Product Benefit	Performance Attributes		
		Adhesion	Workability	Flexibility
VINNAPAS® 529 ED	General purpose product with medium viscosity.	○	○	○
VINNAPAS® 536 ED	Excellent bonding strength and good filler loading ability.	○	○	●

● Excellent ○ Good

Cement Admixtures

Grade	Product Benefit	Performance Attributes	
		Flexibility	Adhesion
VINNAPAS® 529 ED	General purpose product with medium viscosity.	○	●
VINNAPAS® 536 ED	High solid content product with surfactant stabilization and lower viscosity.	○	●

Tile Adhesives

Grade	Product Benefit	Performance Attributes				
		Class D1 (EN 12004)	Class D2 (EN 12004)	Compatibility with Cement	Filler Load	Slip Resistance
VINNAPAS® 224 HD	The proven benchmark for D2 tile adhesives.		●		●	●
VINNAPAS® 536 ED	Suitable for D1 tile adhesives.	○		●	●	

● Excellent ○ Good

Non-combustible EPS

Grade	Product Benefit	Performance Attributes			
		Bonding with EPS	Char formation	Productivity	Reduction in heat emmision
VINNAPAS® 546 ND	High viscosity product exhibiting excellent adhesion to EPS and inorganic flame retardants.	●	●	○	●
VINNAPAS® 547 ND	Medium viscosity product exhibiting good adhesion to EPS and inorganic flame retardants.	○	○	○	●
VINNAPAS® 548 ND	Product with very high viscosity and excellent adhesion to EPS and inorganic flame retardants.	●	●	○	●

● Excellent ○ Good

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