

**WACKER**

CREATING TOMORROW'S SOLUTIONS

VINNAPAS®

CONSTRUCTION | POLYMER POWDERS | CEE

# PRODUCT OVERVIEW VINNAPAS® DISPERSIBLE POLYMER POWDERS





# POLYMER CHEMISTRY – A KEY TO QUALITY

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

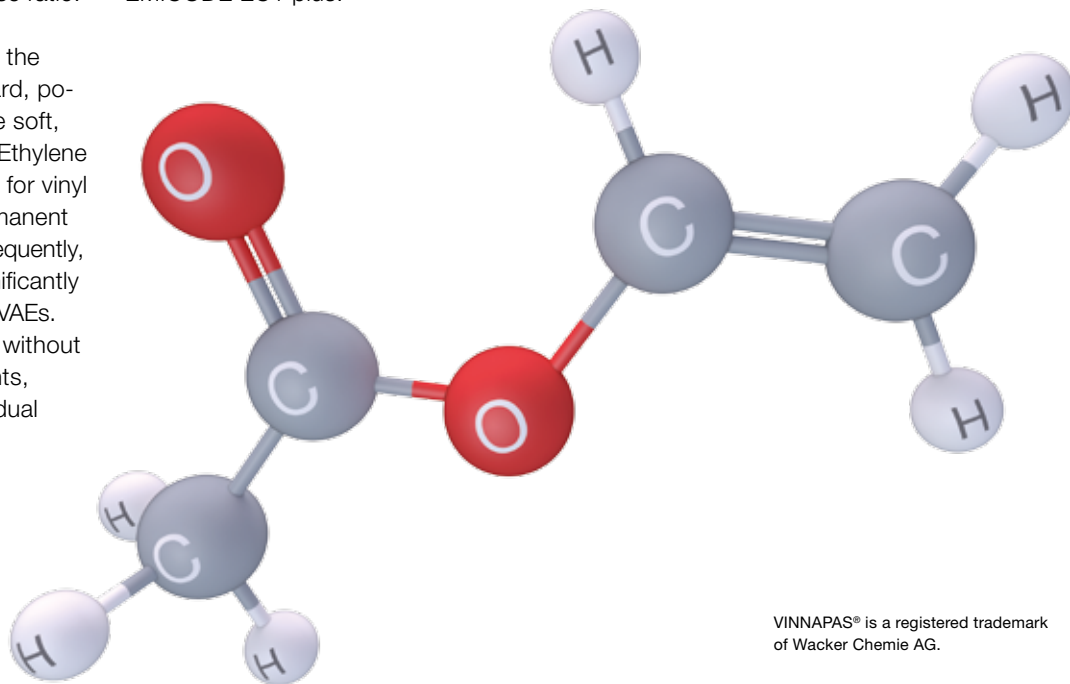
## Vinyl Acetate-Ethylene (VAE) – Serving the Megatrends of Today and Tomorrow

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, which incorporating permanent flexibility into VAE polymers. Consequently, the use of plasticizers can be significantly minimized when formulating with VAEs. In addition, all grades are stabilized without the use of APEO-based surfactants, many of them also show low residual monomer content (<500 ppm).

## Compliance with Strict Labels

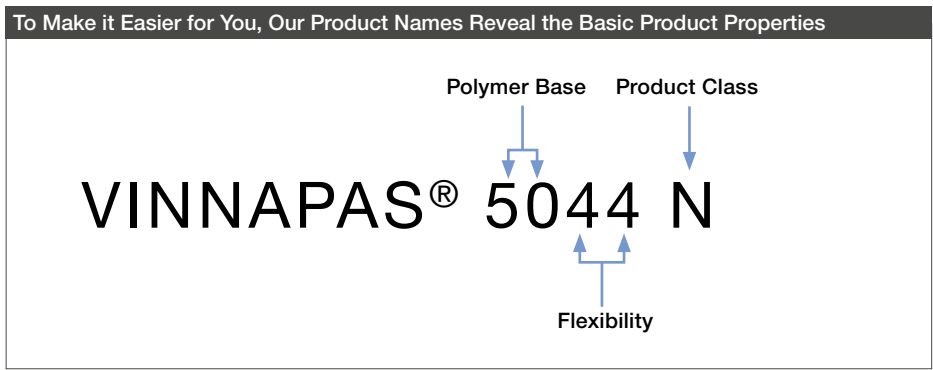
With our cutting-edge VINNAPAS® VAE binders, the construction and paints industries are equipped to meet stringent governmental regulations, as well as the requirements of internationally recognized ecolabels and certifications, such as Blue Angel, Green Seal GS-11, TÜV Süd, and EMICODE EC1 plus.



VINNAPAS® is a registered trademark  
of Wacker Chemie AG.

# FIND THE RIGHT GRADE EASILY

Our portfolio of VINNAPAS® dispersible polymer powders has been developed and optimized over the course of 55 years to offer you the perfect fit for your application, whether for today's or tomorrow's needs. To make it easier for you to choose the ideal product, we have divided our portfolio into product classes.



Polymer Base	
10 – 14	VAc
15 – 19	A
20 – 29	S-A
30 – 39	VC-E
40 – 49	VAc-E
50 – 59	VAc-E
60 – 69	VAc-others
70 – 79	VAc-E-others
80 – 89	VC-E-others

Flexibility	
00 – 09	Very hard
10 – 19	Hard
20 – 29	Semi-flexible
30 – 39	Flexible
40 – 49	Very flexible
50 – 59	Highly flexible

A = acrylate, E = ethylene, S = styrene,  
VAc = vinyl acetate, VC = vinyl chloride  
MMA = methyl methacrylate

## N = VINNAPAS® N Class – Neutral Effect on Rheology

These products provide a high degree of freedom in developing formulations and are ideal for various applications.

## E = VINNAPAS® E Class – Enhanced Properties

These products have enhanced properties in a number of applications and improve essential characteristics. They ensure improved workability, increased adhesion or water resistance, to name just a few.

## T = VINNAPAS® T Class – Thixotropic Expertise

These products are used in thixotropic tile adhesives and in troweling compounds.

## L = VINNAPAS® L Class – Leveling Optimization

These products create smooth surfaces by displaying excellent leveling properties. They are therefore ideal for self-leveling compounds.

## F = VINNAPAS® F Class – Flow Superiority

These products provide excellent flow properties without the need for any additional synthetic superplasticizers or casein. They are therefore ideal for self-leveling compounds that require an instant liquefying effect and a special rheology.

## H = VINNAPAS® H Class – Hydrophobic Excellence

These products have remarkable hydrophobic properties, making them ideal for all types of plasters and tile grouts as well as for ETICS (external thermal insulation composite systems).

# THE FAST TRACK – PRODUCT FINDER

Grade	Typical General Properties			Recommended Applications*
	Polymer Base	Flexibility	MFFT (ISO 2115) [°C]	
<b>Neutral</b>				
VINNAPAS® 4023 N	VAc-E	Semi-flexible	1	Tile adhesives, ETICS
VINNAPAS® 4121 N'	VAc-E	Semi-flexible	1	Tile adhesives, wall and joint fillers
VINNAPAS® 5005 N'	VAc	Hard	11	Wall and joint fillers, tile adhesives, tile grouts, renders/plasters
VINNAPAS® 5010 N	VAc-E	Hard	4	Tile adhesives, tile grouts, renders/plasters, wall and joint fillers
VINNAPAS® 5043 N	VAc-E	Very flexible	0	ETICS
VINNAPAS® 5044 N	VAc-E	Very flexible	0	ETICS, waterproofing membranes, concrete repair, wall and joint fillers
<b>Enhanced</b>				
VINNAPAS® 4040 E	VAc-E	Very flexible	0	Waterproofing membranes, tile grouts, ETICS, renders/plasters
VINNAPAS® 5028 E	VAc-E	Semi-flexible	4	Tile adhesives
VINNAPAS® 7034 E	VAc-E-others	Flexible	0	Renders/plasters, concrete repair, tile grouts, ETICS, wall and joint fillers
VINNAPAS® 7055 E	VAc-E-others	Highly flexible	0	Waterproofing membranes, ETICS, concrete repair
VINNAPAS® 7210 E	VAc-E-others	Hard	7	Tile adhesives, tile grouts
VINNAPAS® 7220 E	VAc-E-others	Semi-flexible	5	Tile adhesives, tile grouts
VINNAPAS® 8118 E'	VAc-VC-E	Hard	4	Tile adhesives
VINNAPAS® 8620 E'	VAc-VC-E	Semi-flexible	5	Tile adhesives
<b>Hydrophobic</b>				
VINNAPAS® 3030 H	VC-E	Flexible	0	Tile grouts, renders/plasters
VINNAPAS® 4042 H	VAc-E	Very flexible	0	ETICS, waterproofing membranes, renders/plasters
VINNAPAS® 5048 H	VAc-E	Very flexible	0	ETICS, renders/plasters, waterproofing membranes
VINNAPAS® 5518 H	VAc-E	Hard	4	Tile grouts, renders/plasters, waterproofing membranes
VINNAPAS® 7031 H	VAc-E-others	Flexible	0	Tile grouts, renders/plasters, wall and joint fillers, ETICS, waterproofing membranes, concrete repair
VINNAPAS® 8031 H	VC-E-others	Flexible	0	Tile grouts, renders/plasters, waterproofing membranes
VINNAPAS® 8034 H	VC-E-others	Flexible	0	Tile grouts, renders/plasters, ETICS, waterproofing membranes
<b>Thixotropic</b>				
VINNAPAS® 5012 T	VAc-E	Hard	4	Tile adhesives, wall and joint fillers
VINNAPAS® 5021 T	VAc-E	Semi-flexible	4	Tile adhesives, wall and joint fillers
VINNAPAS® 5046 T	VAc-E	Very flexible	0	Wall and joint fillers, ETICS
<b>Leveling</b>				
VINNAPAS® 4220 L	VAc-E	Semi-flexible	1	Self-leveling compounds
VINNAPAS® 4410 L	VAc-E	Hard	4	Self-leveling compounds
VINNAPAS® 5025 L	VAc-E	Semi-flexible	4	Self-leveling compounds
VINNAPAS® 5111 L	VAc-E	Hard	4	Self-leveling compounds
VINNAPAS® 5222 L	VAc-E	Semi-flexible	4	Self-leveling compounds
<b>Flow</b>				
VINNAPAS® 5014 F	VAc-E	Hard	4	Self-leveling compounds
VINNAPAS® 7016 F	VAc-E-MMA	Hard	7	Self-leveling compounds

<sup>1</sup> This product is in the scale-up phase. Please contact your sales representative.

A = acrylate  
E = ethylene  
S = styrene  
VAc = vinyl acetate  
VC = vinyl chloride  
MMA = methyl methacrylate

\*Highly recommended  
Recommended

# THE PERFECT FIT – RECOMMENDATION BY APPLICATION

## Tile Adhesives

Grade	Product Benefit	Performance Attributes		
		Tensile Adhesion Strength after Open Time (EN 1346)	Tensile Adhesion Strength after Heat Aging (EN 1348)	Tensile Adhesion Strength after Water Immersion (EN 1348)
<b>Neutral</b>				
<b>VINNAPAS® 4023 N</b>	Good tensile adhesion strength on inorganic surfaces even after water immersion.	▲▲	▲▲	▲▲
<b>VINNAPAS® 4121 N</b>	Very good tensile adhesion strength on inorganic surfaces especially after heat aging.	▲	▲▲▲	▲
<b>VINNAPAS® 5010 N</b>	Very good tensile adhesion strength on inorganic surfaces especially after heat aging.	▲▲	▲▲▲	▲
<b>Enhanced</b>				
<b>VINNAPAS® 5028 E</b>	Long open time and good tensile adhesion strength after water immersion.	▲▲▲	▲▲	▲▲
<b>VINNAPAS® 7210 E</b>	Long open time and very good tensile adhesion strength after water immersion and heat aging.	▲▲▲	▲▲▲	▲▲
<b>VINNAPAS® 7220 E</b>	Very good workability and excellent tensile adhesion strength after water immersion.	▲▲	▲▲▲	▲▲▲
<b>VINNAPAS® 8118 E</b>	Long open time and excellent tensile adhesion strength after heat aging.	▲▲▲	▲▲▲	▲▲
<b>VINNAPAS® 8620 E</b>	Long open time and excellent tensile adhesion strength even after water immersion.	▲▲▲	▲▲	▲▲▲
<b>Thixotropic</b>				
<b>VINNAPAS® 5012 T</b>	Very good tensile adhesion strength after standard conditions.	▲▲	▲▲▲	▲
<b>VINNAPAS® 5021 T</b>	Long open time and good tensile adhesion strength especially after water immersion.	▲▲▲	▲▲	▲▲

## Tile Grouts

Grade	Product Benefit	Performance Attributes		
		Hydrophobic Effect	Workability	Cleaning Properties after First Setting
<b>Neutral</b>				
<b>VINNAPAS® 5010 N</b>	Very good workability and very good cleaning properties after first setting.	---	▲▲▲	▲▲▲
<b>Hydrophobic</b>				
<b>VINNAPAS® 3030 H</b>	Excellent hydrophobic effect, very high mechanical strength and low stickiness.	▲▲▲	▲▲	▲▲
<b>VINNAPAS® 5518 H</b>	Strong hydrophobic effect, very good workability, high mechanical strength and good cleaning properties after first setting.	▲▲	▲▲▲	▲▲▲
<b>VINNAPAS® 7031 H</b>	Hydrophobic effect and very good workability.	▲	▲▲▲	▲▲
<b>VINNAPAS® 8031 H</b>	Slight hydrophobic effect, good workability and low stickiness.	▲	▲	▲▲
<b>VINNAPAS® 8034 H</b>	Strong hydrophobic effect, good workability and low stickiness.	▲▲	▲	▲▲

Based on WACKER guide formulations.

▲▲▲ Excellent    ▲▲ Very Good    ▲ Good    --- Neutral

## Self-Leveling Compounds

Grade	Product Benefit	Performance Attributes		
		Flow Support	Defoaming	Stabilization
<b>Leveling</b>				
VINNAPAS® 4220 L	Basic leveling and defoaming for low-VOC products.	▲▲	▲	▲▲
VINNAPAS® 4410 L	Excellent defoaming properties for very smooth, flat surfaces and good stabilization against water over-dosage.	▲▲	▲▲▲	▲▲▲
VINNAPAS® 5025 L	Good defoaming properties for smooth surfaces and very good tolerance against water over-dosage.	▲▲	▲	▲▲▲
VINNAPAS® 5111 L	Very good defoaming properties at low viscosity for very smooth, flat surfaces for end products with very low emissions.	▲▲▲	▲▲	▲
VINNAPAS® 5222 L	Very good defoaming properties at low viscosity for smooth, flat surfaces.	▲▲▲	▲▲	▲
<b>Flow</b>				
VINNAPAS® 5014 F	Instant plasticizing effect especially for pumpable systems with shear-thinning rheology.	▲▲▲	▲	▲
VINNAPAS® 7016 F	Instant plasticizing effect with casein-like rheology and very good self-healing effect especially for manually applied systems.	▲▲▲	▲	▲▲

## Wall and Joint Fillers

Grade	Product Benefit	Performance Attributes		
		Hydrophobicity	Thixotropy	Workability
<b>Neutral</b>				
VINNAPAS® 5005 N	Good tensile adhesion strength and good workability.	---	---	▲▲
VINNAPAS® 5010 N	Very good tensile adhesion strength on all surfaces and good workability.	---	---	▲▲
<b>Hydrophobic</b>				
VINNAPAS® 7031 H	Hydrophobic effect, very good workability and very good tensile adhesion strength.	▲▲	---	▲▲▲
<b>Thixotropic</b>				
VINNAPAS® 5012 T	Thixotropic, very good workability and very good tensile adhesion strength.	---	▲▲	▲▲▲
VINNAPAS® 5021 T	Thixotropic, very good workability, long open time and good tensile adhesion strength.	---	▲▲	▲▲▲
VINNAPAS® 5046 T	Strongly thixotropic, very good workability.	---	▲▲▲	▲▲▲

## Concrete Repair

Grade	Product Benefit
<b>Neutral</b>	
VINNAPAS® 5044 N	Very good tensile adhesion strength on all surfaces.
<b>Enhanced</b>	
VINNAPAS® 7034 E	Excellent workability and good tensile adhesion strength on all surfaces.

Based on WACKER guide formulations.

▲▲▲ Excellent    ▲▲ Very Good    ▲ Good    --- Neutral

# ETICS

Grade	Product Benefit	Performance Attributes		
		Tensile Adhesion Strength	Impact Resistance	Hydrophobicity
<b>Neutral</b>				
VINNAPAS® 4023 N	Very good tensile adhesion strength particularly on organic surfaces, high impact strength and good workability.	▲▲▲	▲▲	---
VINNAPAS® 4121 N	Very good tensile adhesion strength particularly on organic surfaces, good impact strength and good workability.	▲▲▲	▲	---
VINNAPAS® 5043 N	Very good tensile adhesion strength particularly on organic surfaces, very high impact strength and good workability.	▲▲▲	▲▲▲	---
VINNAPAS® 5044 N	Very good tensile adhesion strength particularly on organic surfaces, very high impact strength and very good workability – versatile use in all ETICS formulations.	▲▲▲	▲▲▲	---
<b>Hydrophobic</b>				
VINNAPAS® 4042 H	Slight hydrophobic effect, very good tensile adhesion strength particularly on organic surfaces and very high impact strength.	▲▲▲	▲▲▲	▲▲
VINNAPAS® 5048 H	Strong hydrophobic effect, very good tensile adhesion strength particularly on organic surfaces and very high impact strength.	▲▲▲	▲▲▲	▲▲▲

## Waterproofing Membranes

Grade	Product Benefit	Adhesion on Critical (especially Organic) Surfaces
<b>Neutral</b>		
VINNAPAS® 5044 N	Very good tensile adhesion strength on all surfaces and good crack-bridging properties.	▲▲▲
<b>Enhanced</b>		
VINNAPAS® 4040 E	Very flexible dispersible polymer powder with very good tensile adhesion strength and very good crack-bridging properties combined with improved workability.	▲▲▲
VINNAPAS® 7055 E	Very good tensile adhesion strength particularly on all surfaces and very good crack-bridging properties even at low temperatures.	▲▲▲
<b>Hydrophobic</b>		
VINNAPAS® 4042 H	Slight hydrophobic effect and very good tensile adhesion strength.	▲▲▲
VINNAPAS® 5048 H	Very strong hydrophobic effect and very good tensile adhesion strength.	▲▲▲
VINNAPAS® 5518 H	Strong hydrophobic effect, very good workability and high mechanical strength.	▲

## Renders and Plasters

Grade	Product Benefit	Tensile Adhesion Strength	Hydrophobicity
<b>Neutral</b>			
VINNAPAS® 5010 N	Very good tensile adhesion strength on inorganic surfaces and good workability.	▲▲▲	---
<b>Enhanced</b>			
VINNAPAS® 7034 E	Excellent workability and very good tensile adhesion strength.	▲▲▲	▲
<b>Hydrophobic</b>			
VINNAPAS® 5048 H	Strong hydrophobic effect and very good tensile adhesion strength.	▲▲▲	▲▲▲
VINNAPAS® 5518 H	Strong hydrophobic effect, very good workability and very good tensile adhesion strength.	▲▲▲	▲▲▲
VINNAPAS® 7031 H	Hydrophobic effect, very good workability and very good tensile adhesion strength.	▲▲▲	▲▲
VINNAPAS® 8034 H	Strong hydrophobic effect, good workability and very good tensile adhesion strength.	▲▲▲	▲▲▲

Based on WACKER guide formulations.

▲▲▲ Excellent    ▲▲ Very Good    ▲ Good    --- Neutral



**WACKER**

**Wacker Chemie AG**  
Hanns-Seidel-Platz 4  
81737 München, Germany  
Tel. +49 89 6279-1741  
info@wacker.com

[www.wacker.com](http://www.wacker.com)  
[www.wacker.com/construction](http://www.wacker.com/construction)  
[www.wacker.com/move](http://www.wacker.com/move)

[www.wacker.com/socialmedia](http://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.