

# VINNAPAS® CEF 52

## Product description

VINNAPAS® CEF 52 is a dispersion of a vinyl chloride, ethylene and vinyl ester terpolymer.

VINNAPAS® CEF 52 can be used as a binder for coating systems containing an opacifying pigment, such as polymer-modified plasters. The special composition and manufacturing technology mean that VINNAPAS® CEF 52 can be used to formulate very hydrophobic products.

## Application

VINNAPAS® CEF 52 has only a slight intrinsic odor. It forms a film that is characterized by very low water uptake and good saponification resistance. To achieve optimum weatherability in pasty plasters and facade coatings, only use opacifying pigments in adequate quantities.

VINNAPAS® CEF 52 is highly suited for use as sole binder. The dispersion, however, can also be used to modify inorganic binders, such as cement and lime, improving their tensile adhesive strength, flexural strength, deformability, abrasion resistance and processability.

In exterior insulation and finish systems (EIFS), VINNAPAS® CEF 52 is an ideal binder for adhesive and base coats - for example, by blending the dispersion with Portland cement - and an ideal sole binder for polymer plasters containing opacifying pigments. This means that it is possible to produce the entire EIFS with only one binder.

By virtue of the low flammability of VINNAPAS® CEF 52, correctly installed EIFS with this composition fall under Fire Class B as per EN 13501-1 (which applies to EIFS).

## Processing

For each application, customers should always test the compatibility of VINNAPAS® CEF 52 before blending with other polymer dispersions. Dispersions with an acidic pH should be adjusted to alkaline before the dispersions are mixed. It is important to ensure that the

pH does not fall over time, by (for example) adding calcium carbonate. If mixing produces an opaque film, this does not mean incompatibility, but is often due to the resin particles' different refractive indices.

Since VINNAPAS® CEF 52 has a minimum film-forming temperature of approx. 7°C, the addition of a film-forming agent is normally required. Suitable agents are <sup>1)</sup>Lusolvan® FBH and <sup>2)</sup>Texanol™.

VINNAPAS® CEF 52 is stable in the neutral and alkaline pH range. Consequently, it is advisable to first place any acidic additives in a stirring vessel and to adjust their pH to about 8 before adding the dispersion.

## Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. VINNAPAS® CEF 52 has a shelf life of 6 months starting from the date of receipt if stored under cool (below 25 °C) but frost-free conditions in the original, unopened containers. Iron or galvanized iron containers and equipment are not recommended. Corrosion could result in discoloration of the dispersion or blends made from it in further processing. We therefore recommend the use of containers and equipment made of ceramic, rubberized or enameled materials, appropriately finished stainless steel, or plastic (rigid PVC, polyethylene or polyester resin).

As polymer dispersions may tend to superficial film formation, skins or lumps may be formed during storage or transportation. A filtration process is thus recommended prior to utilization of the product.

## Preservation for transport, storage and further processing

VINNAPAS® CEF 52 is adequately preserved during transportation and storage if kept in the original, unopened containers. When stored in tanks, the dispersion should be modified with a preservative to prevent microbial contamination. Suitable measures should be taken to ensure that the tanks are properly clean. In storage tanks in which the product is not stirred, it is advisable to cover the surface of the dispersion with 1 - 2 cm of water, to which a preservative has been added. This will prevent skin

formation and microbial contamination. In the case of storage in silos, it is important that the air drawn into the silo when the product is discharged is also kept free of germs. As a rule, all finished products manufactured from polymer dispersions also require preservation. The type and extent of preservation will depend on the raw materials used and the anticipated sources of contamination. The compatibility and effectiveness of the preservatives should be checked for a given formulation. Preservative manufacturers will be able to advise you on the type and amount of conservation agent to use.

**Additional information**

If VINNAPAS® CEF 52 is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® CEF 52 is the sole responsibility of the purchaser. All legal and other regulations must be complied with.

For questions concerning food contact status according to chapter 21 CFR (US FDA) and German BfR, please contact:

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
D-81737 Munich  
Germany

**Safety notes**

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. These are available on request from WACKER sales offices or may be downloaded from the WACKER Web site [www.wacker.com/vinnapas](http://www.wacker.com/vinnapas).

**Product data**

Specification data	Inspection Method	Value
Solids content	DIN EN ISO 3251	59 - 61 %
Viscosity, dynamic at 23 °C	DIN EN ISO 2555	3000 - 8000 mPa.s
Measurement condition for the method	Brookfield, spindle 4 / 20 rpm	
pH-Value	DIN/ISO 976	7 - 9

Typical general characteristics	Inspection Method	Value
Density	DIN EN ISO 2811-1	approx. 1,13 g/cm <sup>3</sup>
Minimum film forming temperature	DIN ISO 2115	approx. 7 °C
Frost resistance	specific method	protect from freezing
Predominant particle size	specific method	approx. 300 nm
Protective colloid / emulsifier system		ionic and nonionic surfactants
Film forming agents	specific method	1,6 wt % fatty acid ester based on dispersion
Plasticizer		
Filler and pigment compatibility	specific method	very good
Electrolyt stability	specific method	very good
Appearance of the dispersion film	Visual	clear, glossy
Surface of the dispersion film	specific method	tack free
Tensile strength	DIN EN ISO 527-3	approx. 5,0 N/mm <sup>2</sup>
Elongation at break	DIN EN ISO 527-3	approx. 450 %
Glass transition temperature DSC	specific method	approx. 14 °C

Figures below "Typical general characteristics" are intended as a guide and should not be used in preparing specifications.

- 1) Lusolvan® is a trademark of BASF SE
- 2) Texanol™ is a trademark of Eastman Chemical Company

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.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

WACKER® is a trademark of Wacker Chemie AG. VINNAPAS® is a trademark of Wacker Chemie AG.

For technical, quality, or product safety questions, please contact:

Wacker Chemie AG  
Hanns-Seidel-Platz 4  
81737 München, Germany  
info@wacker.com

www.wacker.com