

VINNOL® CE 35

Product description

VINNOL® CE 35 is an aqueous dispersion of a terpolymer of vinyl chloride, vinyl acetate and ethylene.

Application

VINNOL® CE 35 is especially suitable as a binder for weldable wadding. It sprays well and does not generate unpleasant odors during processing. Films formed from the dispersion can be heat sealed and high frequency welded.

Because of its high chlorine content, VINNOL® CE 35 can be used in conjunction with antimony oxide, phosphorous-nitrogen compounds or other flame retardant additives to produce flame retardant coatings. It is also especially suitable for making plasticizer-free heat sealable and high frequency weldable coatings on paper and cardboard.

Processing

Solvents and Plasticizers

The flame retardant effect of VINNOL® CE 35 can be increased by adding, for example phosphorous-nitrogen compound, which also softens the polymer film and lowers the glass transition and minimum film forming temperatures.

The addition should be made at room temperature but the mixture should then be heated at about 50 °C for 1 hour to ensure that the plasticizer diffuses completely into the resin particles.

Defoaming Agents

If necessary, VINNOL® CE 35 dispersion can be defoamed with ¹SILFOAM® SE9, for example. The efficacy and compatibility of the formulation chosen should always be checked.

Thickening Agents

Polyurethane thickeners such as ²ROHAGIT® SD15, ³ACRYSOL™ RM8, ⁴Rheovis® AS 1125 are recommended to use with VINNOL® CE 35. The efficacy and compatibility of the formulation chosen should always be checked.

Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. VINNOL® CE 35 has a shelf life of 6 months starting from the date of receipt if stored in the original, unopened containers at temperatures between 5 and 30 °C. Iron or galvanized-iron equipment and containers are not recommended because the dispersion is slightly acidic. Corrosion may result in discoloration of the dispersion or its blends when further processed. Therefore the use of containers and equipment made of ceramics, rubberized or enameled materials, appropriately finished stainless steel, or plastic (e.g. rigid PVC, polyethylene or polyester resin) is recommended. As polymer dispersions may tend to superficial film formation, skins or lumps may form during storage or transportation. Filtration is therefore recommended prior to utilization of the product.

Preservation for Transport, Storage and further Processing

VINNOL® CE 35 is adequately preserved during transportation and storage if kept in the original, unopened containers. However, if it is transferred to storage tanks, the dispersion should be protected against microbial attack by adding a suitable preservative package.

Measures should also be taken to ensure cleanliness of the tanks and pipes. In unstirred tanks, a layer of preservative-containing water should be sprayed onto the surface of the dispersion to prevent the formation of unwanted skin and possible attack by microorganisms. The thickness of this water layer should be < 5 mm for low viscosity dispersions and up to 10–20 mm for high viscosity products. Proper procedures – periodic tank cleaning and sanitization – must be set up in order to prevent microbial attack. Contact your biocide representative/supplier for further plant hygiene recommendations. Measures should be taken to ensure that only clean air enters the tank when the dispersion is removed.

Finished products manufactured from polymer dispersions usually also require preservation. The type and scope of preservation will depend on the raw materials used and the anticipated sources of

contamination. The compatibility with other components and the efficacy of the preservative should always be tested in the respective formulation. Preservative manufacturers will be able to advise you about the type and dosage of preservative required.

Additional information

If VINNOL® CE 35 is used in applications other than those mentioned, the choice, processing and use of VINNOL® CE 35 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
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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.

Product data

Specification data	Inspection Method	Value
Solids content	DIN EN ISO 3251	49 - 51 %
Viscosity, dynamic at 23 °C	DIN EN ISO 2555	20 - 80 mPa.s
pH-Value	DIN/ISO 976	6,0 - 7,5

Typical general characteristics	Inspection Method	Value
Density at 23 °C	DIN EN ISO 2811-3	approx. 1,13 g/cm ³
Minimum film forming temperature	DIN ISO 2115	approx. 45 °C
Frost resistance	specific method	protect from freezing
Predominant particle size	specific method	approx. 0,15 µm
Protective colloid / emulsifier system		surfactants, nonionic emulsifiers
Coalescing agent / plasticizer		none
Filler and pigment compatibility	specific method	very good
Appearance of the dispersion film	Visual	clear, glossy
Surface of the dispersion film		dry
Tensile strength	DIN EN ISO 527, part 1 - 3	brittle
Elongation at break	DIN EN ISO 527, part 1 - 3	brittle
Glass transition temperature DSC	specific method	approx. 40 °C

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

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- 2) ROHAGIT® is a trademark of Synthomer
- 3) ACRY SOL™ is a trademark of Dow Chemical Company
- 4) Rheovis® is a trademark of BASF SE

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

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

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