

VINNOL® CE 35



Polymer Dispersions

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

Properties

- VINNOL® CE 35 is a stiff film-former and imparts excellent heat-sealability and high frequency (HF)-weldability to nonwovens & textiles substrates.
- 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 also especially suitable for making plasticizer-free heat sealable and high frequency weldable coatings on paper and cardboard.

Technical data

Specification

| Property | Condition | Value | Method |
|--------------------|-----------|----------------|-----------------|
| Solids content | - | 49 - 51 % | DIN EN ISO 3251 |
| Viscosity, dynamic | 23 °C | 40 - 100 mPa·s | DIN EN ISO 2555 |
| pH | - | 6.0 - 7.5 | DIN/ISO 976 |

General Characteristics

| Property | Condition | Value | Method |
|--|-----------|--------------------------------|----------------------------|
| Density | 23 °C | approx. 1.13 g/cm ³ | DIN EN ISO 2811-3 |
| Minimum film forming temperature | - | approx. 45 °C | DIN ISO 2115 |
| Frost resistance | - | protect from freezing | specific method |
| Protective colloid / emulsifier system | - | ionic and nonionic surfactants | - |
| Filler compatibility | - | very good | specific method |
| Appearance of the dispersion film | - | clear, glossy | Visual |
| Surface of the dispersion film | - | dry | - |
| Elongation at break | - | brittle | DIN EN ISO 527, part 1 - 3 |
| Glass transition Tg DSC | - | approx. 40 °C | specific method |
| Coalescing agent / plasticizer | - | none | - |
| Predominant particle size | - | approx. 0.15 µm | specific method |
| Tensile strength | - | brittle | DIN EN ISO 527, part 1 - 3 |

These figures are only intended as a guide and should not be used in preparing specifications.

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Applications

- Automotive Carpet & Interior
- Filtration
- Flame retardant coatings
- Flame-Resistant Treatment
- Hot Sealing Property & High Frequency Welding Capability
- Stiffening agents

Application details

General

VINNOL® CE 35 is especially suitable as binder for heats-sealable/ HF-weldable waddings. It sprays well and does not generate unpleasant odors during processing.

Polymer Dispersions

VINNOL® CE 35 is miscible with most anionic and/ or nonionic polymer dispersions especially with VINNOL® CEN 2752. The latter will soften handfeel.

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 ¹⁾SILFOAM® SE1662, for example. The efficacy and compatibility of the formulation chosen should always be checked.

Thickening Agents

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

1) SILFOAM® is a trademark of Wacker Chemie AG

2) ROHAGIT® is a trademark of Synthomer PLC

3) ACRYSOL™ is a trademark of Dow Chemical Company

4) RHEOVIS® is a trademark of BASF SE

Additional information

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

For questions concerning food contact status according the chapter 21 CFR (US FDA) and German BfR, please feel free to contact us.

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Packaging and storage

Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. The product 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. Any longer periods for the maximum storage period that may be described in the Certificate of Analysis which accompanies each shipment of the product, take preference over this suggestion in which case the time period stated in the Certificate of Analysis shall be solely authoritative. 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

The product 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.

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.

QR Code VINNOL® CE 35



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

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