

VINNOL[®] CEN 2752



Polymer Dispersions

VINNOL[®] CEN 2752 is a fine particle size, aqueous dispersion of a plasticizer-free, self-crosslinking copolymer of vinyl chloride and ethylene with reduced formaldehyde amount.

Properties

- Ideal binder for soft nonwovens and needle felts and as a coating and finishing agent for woven and knitted goods.
- Notable features include: good adhesion to cellulose and synthetic fibers, excellent wet strength of finishes and the reduced amount of formaldehyde.
- Finishes based on VINNOL[®] CEN 2752 can be high frequency welded and heat sealed.
- VINNOL[®] CEN 2752 is particularly suitable as a binder in flame retardant finishes.

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	49 - 51 %	DIN EN ISO 3251
Viscosity, dynamic	23 °C Brookfield, spindle 1 / 20 rpm	50 - 350 mPa·s	DIN EN ISO 2555
pH	-	5.0 - 7.5	DIN/ISO 976

General Characteristics

Property	Condition	Value	Method
Formaldehyde in dispersion	-	< 300 ppm	specific method
Density	23 °C	approx. 1.12 g/cm ³	DIN EN ISO 2811-3
Minimum film forming temperature	-	approx. 5 °C	DIN ISO 2115
Frost resistance	-	protect from freezing	specific method
Protective colloid / emulsifier system	-	ionic and nonionic surfactants	-
Filler and pigment compatibility	-	very good	specific method
Appearance of the dispersion film	-	clear, glossy	Visual
Surface of the dispersion film	-	slightly tacky	-
Elongation at break ⁽¹⁾	-	approx. 1400 %	DIN EN ISO 527, part 1 - 3
Glass transition temperature Tg DSC	-	approx. 10 °C	specific method
Predominant particle size	-	approx. 0.2 µm	specific method
Tensile strength ⁽²⁾	-	approx. 5.0 N/mm ²	DIN EN ISO 527, part 1 - 3
Water absorption	24 h	approx. 10 %	DIN EN ISO 62

¹(crosslinked)

²(crosslinked)

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

- Hot Sealing Property & High Frequency Welding Capability
- Textile Finishing

Application details

General

Coatings of VINNOL® CEN 2752 possess good adhesion to PVC foil together with good heat resistance of the bond. VINNOL® CEN 2752 can therefore be used to bond PVC to cardboard, paper and fibrous materials. Because of the high chlorine content of the base polymer, VINNOL® CEN 2752 is particularly suitable as a binder in flame retardant finishes. However, as the chlorine content is generally not sufficient to ensure that all textiles are fully flame proofed, the dispersion should be combined with other flame retardant agents such as antimony oxides, phosphate esters or aluminum hydroxide. The type and level of flame retardant should be chosen according to the textile and the appropriate burning test.

Processing

VINNOL® CEN 2752 crosslinks at temperatures above 130°C, but 150°C is required for optimum durability. The pH value of VINNOL® CEN 2752 is usually sufficient for optimum crosslinking but in exceptional cases adding of 0.1-0.3 % diammonium phosphate or citric acid can improve the process.

Polymer Dispersions

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

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 to the chapter 21 CFR (US FDA) and German BfR, please feel free to contact us.

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

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® CEN 2752



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

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

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.