

VINNAPAS® CA 55



Polymer Dispersions

VINNAPAS® CA 55 is an aqueous polymer dispersion based on vinyl acetate and ethylene. It is particularly suited in carpet binder applications where a medium/ firm hand is required. The dispersion combines high solids content with a low viscosity — a combination that permits the addition of high filler loadings, resulting in adhesive formulations with the high solid contents that are typically required in the carpet industry. VINNAPAS® CA 55 is not produced with any added organic solvents, plasticizers or formaldehyde donors.

Properties

- very good tuft bind and delamination strength
- high filler load possible
- good compatibility with other binder chemistry
- high flame resistance
- low odor and emission

VINNAPAS® CA 55 may be used in applications where high filler loadings of calcium carbonate, aluminum trihydrate (ATH) or other fillers are required. The stabilization allows the dispersion to be compatible with acrylic dispersions and many styrene-butadiene latices.

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	61 - 63 %	DIN EN ISO 3251
Viscosity, dynamic	23 °C	1000 - 3000 mPa·s	DIN EN ISO 2555
pH	-	4.0 - 7.0	DIN/ISO 976

General Characteristics

Property	Condition	Value	Method
Density	20 °C	approx. 1.08 g/cm ³	ISO 2811
Minimum film forming temperature	-	0 °C	DIN ISO 2115
Frost resistance	-	protect from freezing	-
Filler compatibility	-	excellent	specific method
Glass transition temperature	-	approx. 6 °C	specific method
Predominant particle size	-	0.5 - 1.0 µm	specific method

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
- Needlefelt Carpet
- Tufted Broadloom Carpet
- Tufted Carpet Tiles
- Woven Carpet

Application details

General VINNAPAS® CA 55 can be used in the precoat and secondary coatings that are applied in the production of tufted carpet backings. It can also be used in the production of tufted carpet tiles and woven carpets. VINNAPAS® CA 55 offers high adhesion strength, and good flexibility. Special VINNAPAS® CA 55 can be applied by a number of different application methods including foaming (direct coating), pan coating, saturation and spraying. VINNAPAS® CA 55 performs well on various fiber types including polypropylene, polyamide, cellulose, and polyester.

Processing

Foaming additives and dispersing agents can be added to VINNAPAS® CA 55 to improve foamability and filler acceptance. We recommend alkali-swellable poly(acrylic acid) derivatives. Products with neutral pH, e.g., those based on cellulose derivatives, poly(vinyl alcohol) or polyurethane, can also be considered. The compatibility and efficacy should be checked by conducting a storage test.

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.

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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 VINNAPAS® CA 55



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

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