

VINNAPAS® 192 (CGN)

Product description

VINNAPAS® 192 (CGN) is a self crosslinking, plasticizer-free, aqueous polymer dispersion produced from the monomers vinyl acetate and ethylene for the Nonwovens market.

Application

General

VINNAPAS® 192 (CGN) offers a unique balance of high dry and wet strength, excellent absorbent properties, and imparts good handfeel. The dispersion is stabilized with an APE-free surfactant and has a low formaldehyde content of less than 100 ppm.

Special

VINNAPAS® 192 (CGN) can be applied by a number of different application methods including saturation, spraying, foaming and print bonding.

VINNAPAS® 192 (CGN) performs well on various fiber types including cellulose, rayon, glass and polyester. This dispersion is especially suited for use in feminine hygiene and related absorbent products, and pre-moistened wipes. Temperatures above 150°C are necessary to achieve proper crosslinking.

Processing

Formulating recommendations include the addition of catalyst and a wetting surfactant. Catalysts should be added to the dispersion as a 10% solution under good agitation. Typical catalysts include ammonium chloride, citric acid and sodium bisulfate. A 1% catalyst level (solids on solids dispersion) is sufficient to achieve complete crosslinking of the polymer. Surfactants can also be added to VINNAPAS® 192 (CGN) to improve penetration of the binder into the substrate and improve absorbency of the finished product. Effective surfactant levels are 0.5 to 1.0% on dispersion solids. The compatibility and efficacy has to be checked undertaking a storage test.

Polymer Dispersions

VINNAPAS® 192 (CGN) can be mixed with most VINNAPAS®- and VINNOL®-dispersions as well as

with most anionic and/or nonionic aqueous polymer dispersions. However the compatibility of the mixture should be tested by undertaking a storage test.

Defoaming Agents

Suitable defoaming agents include SILFOAM® SE9 or SURFYNOL® DF58. The compatibility and efficiency should be tested in any case.

Thickening Agents

We recommend, in particular, products with neutral pH, e.g. those based on cellulose derivatives, polyvinyl alcohol or polyurethane.

Should alkali-swellable polyacrylic acid derivatives be used those need to be chosen that are effective with ammonia, in order not to interfere with the acid catalyzed cross-linking of VINNAPAS® 192 (CGN), like e.g. LATEKOLL® D, ROHAGIT® SD15, VISCALEX® HV30.

Their compatibility and efficacy has to be checked.

Storage

When VINNAPAS® 192 (CGN) is stored in tanks, proper storage conditions must be maintained. If stored in the original, unopened containers at cool (below 30 °C), but frost-free temperatures VINNAPAS® 192 (CGN) has a shelf life of 6 months. 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.

Preservation for Transport, Storage and further Processing

VINNAPAS® 192 (CGN) 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. 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. Measures should be taken to ensure that only bacteria-free 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 VINNAPAS® 192 (CGN) is used in applications other than those mentioned, the choice, processing and use of VINNAPAS® 192 (CGN) 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. They are available on request from WACKER sales offices or may be printed via WACKER web site www.wacker.com/vinnapas.

Product data

Specification data	Inspection Method	Value
Solids content	DIN EN ISO 3251	51 - 53 %
Viscosity, dynamic at 23 °C	DIN EN ISO 2555	50 - 400 mPa.s
pH-Value	DIN/ISO 976	4,5 - 6,0

Typical general characteristics	Inspection Method	Value
Density at 23 °C	DIN EN ISO 2811-3	approx. 1,07 g/cm ³
Minimum film forming temperature	DIN ISO 2115	approx. 0 °C
Frost resistance	WACKER method	protect from freezing
Predominant particle size	WACKER method	approx. 0,1 - 3,0 µm
Protective colloid / emulsifier system		ionic surfactants
Appearance		clear, glossy
Surface		tack free
Tensile strength (crosslinked)	DIN EN ISO 527, part 1 - 3	approx. 9 N/mm ²
Elongation at break (crosslinked)	DIN EN ISO 527, part 1 - 3	approx. 1300 %
Glass transition temperature DSC	WACKER method	approx. 10 °C

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

The data presented in this leaflet 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 leaflet 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 recommendations do 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 products 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.polymers@wacker.com

www.wacker.com