VINNAPAS® EN 1033

VINNAPAS®

Polymer Dispersions

VINNAPAS® EN 1033 is a self-crosslinking, aqueous polymer dispersion based on the monomers vinyl acetate and ethylene. VINNAPAS® EN 1033 is produced without the use of plasticizer.

Properties

- VINNAPAS® EN 1033 is particularly suitable as binder for soft nonwovens with good wet tensile strength
- VINNAPAS® EN 1033 has a low VOC-content and is particulary suitable as binder for nonwovens/ textiles with stricter eco-labelling requirements

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	52 - 54 %	DIN EN ISO 3251
Viscosity, dynamic	23 °C	100 - 500 mPa·s	DIN EN ISO 2555
pH	-	3.5 - 4.5	DIN/ISO 976

General Characteristics

Property	Condition	Value	Method
Density	23 °C	approx. 1.05 g/cm^3	DIN EN ISO 2811-3
Minimum film forming temperature	-	approx. 0 °C	DIN ISO 2115
Frost resistance	-	protect against freezing	specific method
Protective colloid / emulsifier system	-	ionic and nonionic surfactants	-
Appearance of the dispersion film	-	clear	-
Surface of the dispersion film	-	slightly sticky	-
Elongation at break[(1)]	-	approx. 1600 %	DIN EN ISO 527, part 1 - 3
Glass transition temperature	-	approx. -5 °C	specific method
Predominant particle size	-	approx. 0.3 µm	specific method
Tensile strength[(2)]	-	approx. 3.0 N/mm^2	DIN EN ISO 527, part 1 - 3

[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

- Automotive Insulation
- Textile Finishing

Application details

General
VINNAPAS® EN 1033 can be applied by spray, impregnation or foam. Temperatures above 150°C are necessary to achieve proper crosslinking.

Processing
Polymer Dispersions
VINNAPAS® EN 1033 can be mixed with most of the VINNAPAS® dispersions and with many other aqueous polymer dispersions. However, the compatibility of the mixture should be tested by undertaking a storage test.
Defoaming Agents
Suitable defoaming agents include 1)SILFOAM® SE1662, 2) FOAMASTER® WO 2310, 3)Agitan® 352 and 4)SURFYNOL® DF58. Their compatibility and efficiency in the formulation chosen should always be tested.
1) SILFOAM® is a trademark of Wacker Chemie AG
2) FOAMASTER® is a trademark of BASF SE
3) AGITAN® is a trademark of MÜNZING Chemie GmbH
4) SURFYNOL® is a trademark of Evonik Resource Efficiency GmbH

Thickening Agents
We recommend, in particular, products with a neutral pH, e.g. those based on cellulose derivatives, polyvinyl alcohol or polyurethane, like e.g. 5)ACRYSOL® RM8. Should alcali-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® EN 1033. Typical alkali-swellable thickening agents are, for example 6)ROHAGIT® SD15, 5)ACRYSOL® ASE60, 7)RHEOLATE® 420 or 8)VISCALEX® HV30. The efficacy and compatibility of the formulation chosen should always be checked.
5) ACRYSOLTM is a trademark of Dow Chemical Company
6) ROHAGIT® is a trademark of Synthomer PLC
7) RHEOLATE® is a trademark of Elementis Specialties, Inc
8) VISCALEX® 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.
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. VINNAPAS® EN 1033 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 VINNAPAS® EN 1033, 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 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
VINNAPAS® EN 1033 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® EN 1033

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

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