VINNAPAS® 401

VINNAPAS®

Polymer Dispersions

VINNAPAS® 401 is a poly(vinyl alcohol) stabilized vinyl acetate-ethylene copolymer dispersion with a glass transition temperature (Tg) of -15 °C. It was developed to offer easy clean-up, long open time and excellent film flexibility.

Properties

VINNAPAS® 401 is used as a base for adhesives and has an excellent balance of very good wet tack, speed of set, adhesion, and heat resistance. It has a high thickening response to plasticizer and a long open time. The low Tg of the dried film provides excellent cold temperature flexibility. Compared to VINNAPAS® 400, this dispersion offers cleaner machining, easier clean up and is suitable for a variety of roll, extruder, and spray applications. VINNAPAS® 401 is especially suited for non-contact extrusion machine configurations.

Technical data

Specification

Property	Condition	Value	Method
pH	-	5.0 - 6.5	specific method
Viscosity, dynamic	25 °C	1300 - 2200 mPa·s	specific method
Solids content	-	54.0 - 56.0 %	specific method

General Characteristics

Property	Condition	Value	Method
Glass transition temperature	-	approx. -15 °C	DSC, specific method
Protective colloid / emulsifier system	-	polyvinyl alcohol	-
Frost resistance	-	protect from freezing	specific method
Density	-	1.05 g/cm^3	specific method
Dry tack	-	none	specific method
Film clarity	-	slightly hazy	specific method
Flexibility	-	excellent	specific method
Mechanical stability	-	excellent	specific method
Thickening response	-	high	specific method
Water resistance	-	moderate	specific method
Wet tack	-	high	specific method

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

Protect against frost.

Applications

- Paper Packaging & Converting

Packaging and storage

Storage

When VINNAPAS® 401 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® 401 has a shelf life of 9 months from the date of manufacture. 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® 401 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. To maintain proper storage conditions appropriate measures should also be taken to ensure cleanliness of the tanks and pipes. In a storage tank in which VINNAPAS® 401 is not stirred, it is advisable to contact your biocide representative/supplier. Proper procedures must be set up in order to prevent microbial attack between necessary periodic tank cleaning and sanitization. These procedures will vary, since loading and unloading practices in each storage situation will differ slightly. 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 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® 401

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

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