ETONIS 7445 A

Polymer Dispersions

ETONIS 7445 A is a multi-purpose polymer dispersion for concrete and bitumen application, specially suited for latex modified concrete, precast concrete, concrete repair and emulsified bitumen for road construction. It is based on a copolymer of vinylacetate and ethylene and belongs to the product class ETONIS® A and it has a neutral effect on rheology and provides the basic properties adhesion and flexibility, giving a high degree of formulation freedom. ETONIS 7445 A is part of our standard range, offering you the best-in-class solution for a wide variety of infrastructure applications.

Properties

•ETONIS 7445 A makes fresh concrete easier to process and pump because it reduces the frictional forces between cement and aggregates.
•The cohesive properties of ETONIS 7445 A increase the sedimentation stability of concrete and emulsified bitumen, reducing bleeding and segregation.
•ETONIS 7445 A has a plasticizing effect and reduces the water/cement ratio without compromising the concrete's workability.
•In hardened concrete and bitumen with ETONIS 7445 A improves adhesion, enhances flexural strength and increases abrasion resistance.
•Concrete modified with ETONIS 7445 A seals against pressing water, shows enhanced carbonation resistance and prevents the ingress of aggressive media into the mix.
•In combination with suitable foam-control agents and concrete admixture, ETONIS 7445 A also increases compressive and flexural strength.
•ETONIS 7445 A is a hard general-purpose dispersion and has no effect on rheological properties. It is eminently suitable for formulating compounds of high ultimate strength.
•Low emissions

Technical data

Specification

Property	Condition	Value	Method
Solids content	-	59.5 - 61.5 %	specific method
Viscosity, dynamic	25 °C	2000 - 3000 mPa·s	specific method
pH	-	4.0 - 6.0	specific method
Density	20 °C	approx. 1.07 g/cm^3	specific method

General Characteristics

Property	Condition	Value	Method
Minimum film forming temperature	-	0 °C	specific method
Predominant particle size	-	approx. 1 nm	specific method
Protective colloid / emulsifier system	-	polyvinyl alcohol	-
Filler compatibility	-	excellent	specific method
Appearance of the dispersion film	-	milky white	Visual
Surface of the dispersion film	-	high dry tack	specific method
Glass transition temperature	-	approx. 0 °C	specific method

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

Application details

- Concrete Admixture
- Latex Modified Concrete
- Precast Concrete
- Seal Coat Bitumen
- Prime & Tact Coat Bitumen

For typical application fields of ETONIS 7445 A , refer to the section "application". Please discuss additional applications with your WACKER customer representative.

Processing

ETONIS 7445 A may be added in liquid form to the fresh mixed liquid concrete. The amount of ETONIS 7445 A needed to modify concrete ranges from 2.5 - 20 wt. % relative to the quantity of polymer solid/cement. The exact amount will depend on the requirements profile.

Packaging and storage

Packaging

- 200 Kg Steel drum
- 1,100 kg IBC
- 20 ton Flexitank

Storage

When the dispersion is stored in tanks, proper storage conditions must be maintained. The product has a shelf life of 9 months starting from the date of manufacture 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 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
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. If the product is stored for a longer period, stirring is recommended before use.

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/etonis.

QR Code ETONIS 7445 A

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

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