

Data sheet Issue 11/2023

PURABYK-R 5510

Rheology additive based on activated bentonite for aqueous systems. Especially recommended as a gelling agent for water phases in personal care applications to provide thixotropic stabilization and a high level of thickening (COSMOS APPROVED, NATRUE Approved).





Product data

Composition

Modified/activated phyllosilicate (INCI: Bentonite, Xanthan gum)

Typical properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Bulk density: 550–700 kg/m³

pH value (2 % in $\rm H_2O$): ca. 10 Moisture content: max. 13 % Sieve residue (200 Mesh/74 μ m): max. 5 % off-white

Delivery form: free-flowing powder

Storage and transportation

PURABYK-R 5510 should be transported and stored dry in unopened original packaging at temperatures between 0 °C and 30 °C.

Applications

Personal care

Special features and benefits

PURABYK-R 5510 can be used to thicken and stabilize emulsions, so that storage-stable systems can be produced. The additive is compatible with most emulsions, pigments and extenders, and is highly effective in acidic, neutral and alkaline systems. Furthermore, PURABYK-R 5510 demonstrates good compatibility with anionic and nonionic surfactants. Due to the resulting thixotropy and high viscosity, the stability is significantly improved.

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Bath and shower gels					
Liquid makeup					
Eye makeup					
Creams and lotions					
especially recommended recommended					

Recommended levels

0.5–3 % additive (as supplied) based upon the total formulation, depending on the application.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

PURABYK-R 5510 is hydrophilic and can be easily wetted by water. It already starts to swell in cold water, but the use of warm water facilitates and accelerates the dispersion. To achieve optimum efficiency, complete dispersion of the material is necessary. Therefore, PURABYK-R 5510 should be incorporated under high shear forces, e.g. by using a dissolver.

The additive can be used as pre-manufactured pre-gel (containing 5 % PURABYK-R 5510). Stirring for approx. 15 minutes under high shear is recommended. To avoid post-thickening effects, this pre-gel should be allowed to age overnight before incorporation into the formulation. The pre-gel is then added to the water slowly whilst slowly stirring.

PURABYK-R 5510 can also be added as a powder to the water phase of the formulation.









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This issue replaces all previous versions.