

## PURABYK-R 5510

COSMOS APPROVED rheology additive based on organically modified and 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.

### Product data

#### Composition

Activated phyllosilicate (INCI: Bentonite, Xanthan gum)

COSMOS APPROVED

#### Typical properties

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

Loose bulk density:	550–700 kg/m <sup>3</sup>
Primary particle size at complete dispersion:	1–5 µm
Dry sieve residue 75 µm:	max. 5 %
Density:	2.20 g/cm <sup>3</sup>
Moisture content:	max. 13 %
Supplied as:	free-flowing powder
Color:	slightly grayish
pH value (2 % in H <sub>2</sub> O):	9–11

#### Storage and transportation

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

### Applications

#### Personal care applications

##### 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.

## Recommended use

Creams and lotions	<input checked="" type="checkbox"/>
Sunscreen products	<input checked="" type="checkbox"/>
Shower gels and shampoos	<input checked="" type="checkbox"/>
Liquid makeup	<input checked="" type="checkbox"/>
Foundations	<input checked="" type="checkbox"/>
Eye makeup	<input checked="" type="checkbox"/>

especially recommended    recommended

## Recommended levels

0.5–2.5 % 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 or a mill.

PURABYK-R 5510 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 incorporated as a powder added to the grind base.

## Special note

In order to prevent microbiological degradation of PURABYK-R 5510, preservation is necessary, depending on the application. Masterbatches, which are not processed immediately, should be preserved in any case.



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This issue replaces all previous versions.