

# PURABYK-R 5511 XR

Rheology additive based on activated phyllosilicate for aqueous systems to generate thixotropic flow behavior in personal care applications (NATRUE Approved).

Gamma irradiation sterilized version of PURABYK-R 5511.



NATRUE Approved

## Product data

### Composition

Modified/activated phyllosilicate (INCI: Bentonite)

### Typical properties

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

Bulk density:	550–750 kg/m <sup>3</sup>
pH value (2 % in H <sub>2</sub> O):	ca. 10
Moisture content:	max. 13 %
Sieve residue (45 µm):	max. 5 %
Total viable count:	max. 100 cfu/g
Whiteness (Elrepho R 457):	ca. 60–65 %
Color:	off-white
Delivery form:	free-flowing powder

### Storage and transportation

PURABYK-R 5511 XR is hygroscopic and should be transported and stored dry in unopened original packaging at temperatures between 0 °C and 30 °C.

**Vegan**

## Applications

### Personal care

#### Special features and benefits

PURABYK-R 5511 XR generates a thixotropic flow behavior in aqueous systems and provides excellent anti-settling properties. This enables the production of storage-stable formulations and facilitates their application. The additive is purely inorganic and stable against diluted acids and bases. Gels produced with PURABYK-R 5511 XR are also resistant to oxidation. The additive is compatible with anionic and nonionic surfactants as well as most emulsions and pigments.

**Recommended use**

Pressed powders	<input checked="" type="checkbox"/>
Blush	<input checked="" type="checkbox"/>
Eye makeup	<input checked="" type="checkbox"/>
Facial masks	<input checked="" type="checkbox"/>
Liquid makeup	<input type="checkbox"/>
Skin cleansing products	<input type="checkbox"/>

☒ especially recommended    ☐ recommended

**Recommended levels**

1–10 % 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 5511 XR is hydrophilic and can be easily wetted with 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 5511 XR should be incorporated under high shear forces, e.g. by using a dissolver.

The additive can be used as pre-manufactured pre-gel (containing 5–10 % PURABYK-R 5511 XR). 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 5511 XR can also be added as a powder to the water phase of the formulation.



**Your local  
contact**

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This issue replaces all previous versions.