



Technical Data Sheet

DEUTERON XG

Thickener based on Xanthan gum

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■ Product Characteristic

Appearance	yellow powder
Bulk density	approx. 800 g/l
Viscosity (1 % in Water)	approx. 2400 mPa*s



■ Product Description

Deuteron XG is a natural biopolymer based on polysaccharides. It is soluble in cold and hot water and results in pseudoplastic solutions. Solutions based on Deuteron XG tolerate a wide temperature and pH range.

At pH levels < 2 and > 12 depolymerisation and thus a decrease in viscosity can occur. Solutions of Deuteron XG tolerate the presence of up to 40 % of organic solvents such as alcohols or glycol ethers.

Deuteron XG is insoluble in pure organic solvents. Deuteron XG is stable in anionic and non-ionic systems. In cationic systems it may come to incompatibilities.

Deuteron XG creates a strong structure viscosity. The viscosity decreases when the shear force is increased. It quickly returns to the base viscosity when the shear force is removed. This prevents settling of pigments and fillers and separation of the liquid phase during storage. It also makes application easier by stabilising the sagging behaviour.

The product is compatible with most commonly-used binders and thickeners used in the coating industry.

■ Applications

Deuteron XG is suitable for the following applications:

- › General viscosity adjustment
- › Reduction of floating / settling of waxes and pigments
- › Improved stability / anti-sagging
- › Preparation of stable gels

Deuteron XG especially improves performance in:

- › Water-based coatings and printing inks
- › Pigment concentrates
- › Emulsion paints and plasters
- › Water based adhesives
- › Cleaning products

■ Dosage

The required addition level depends on the requirement / target properties:

- | | |
|---|-------------|
| a) Thickening / Gel formation: | 0.1 - 1.0 % |
| b) Stabilisation of solids against sedimentation: | 0.1 - 0.3 % |
| c) Anti-sagging: | 0.1 - 0.5 % |



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■ Processing

Due to its rapid hydration, Deuteron XG tends to form lumps. To ensure a proper dispersion it is recommended to add Deuteron XG slowly while stirring. Once everything is added stir at a high shear rate until complete dispersion is achieved.

As soon as the viscosity of the solution increases, the speed should be reduced to avoid foam formation. Usually a proper dispersion takes 20 - 30 minutes. For easier incorporation it is possible to develop an easy to use intermediate product. Therefore, Deuteron XG can be mixed with a glycol / glycoether or alcohol of choice (ration approx. 1:1) and dispersed to a high viscosity suspension.

Thickener solutions based on polysaccharides should be stabilized against fungal and bacterial growth with a suitable biocide. All broad range biocides used in the paint industry are suitable.

■ Storage Conditions

24 months at room temperature and dry conditions. Storage temperature should not exceed 35 °C. The relative humidity should not exceed 70 %.

■ Package Sizes

Paper bags (25 kg net)

■ Safety

According to Regulation (EC) No. 1272/2008 Deuteron XG is not classified as a dangerous product and therefore does not need to be labelled.

For detailed information please refer to the Safety Data Sheet and Regulatory Information Sheet. The documents are also available on our website:

<https://www.deuteron.com/en/download-center/>

■ Deuteron: First class products for the coating industry

Deuteron GmbH successfully develops and sells innovative additives since 1977. Our product range consists of matting agents, anti-static additives, texturing additives, thickeners and UV initiators. In the course of our company history we have become an important partner of the national and international paint, lacquer and coating industry with sales partners around the globe.

This leaflet intends to give technical advice without warranty and does not claim to be complete.



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