



Technical Data Sheet

DEUTERON SO 302

Soft-touch, Texturing and Matting Additive for Water Based Systems

Deuteron[®]
ADDITIVES TO YOUR SUCCESS

■ Product Characteristic

Active content	45 %
Density	approx. 1.0 g/cm ³
Viscosity	approx. 300 mPa*s
Particle size dv50	approx. 30 µm
Particle size dv90	approx. 60 µm
OH-content	approx. 2.1 % (calculated on the solid content)
Appearance	white to yellowish dispersion



■ Product Description

Deuteron SO 302 is a liquid preparation of fine elastomer particles in water. The product is comparable to Deuteron SO 300 but with a significantly coarser particle size distribution that leads to interesting 'soft-texture' effects. The rubber-like character of the elastomer particles imparts a pleasant soft-touch effect to any water-based system. Because of this novel soft-touch approach the use of Deuteron SO 302 opens a wide formulation freedom as even very hard and brittle systems can be adjusted to a pleasant feel without any need for soft and sticky resins.

Deuteron SO 302 is an easy to use liquid that is suitable for the use in auto dosage units.

■ Applications

Deuteron SO 302 can be used in all water-based coating and ink systems. The matting and soft-touch effects are largely independent of the applied film thickness and it is possible to combine Deuteron SO 302 with common surface additives such as waxes or other matting agents to impart soft-touch with minimal impact on the overall system performance.

Because of the hydroxyl content of the elastomer particles it is possible to crosslink the particles using isocyanates. This ensures a good particle embedding and leads to significantly improved mechanical stability but slightly reduced soft-touch.

The use of Deuteron SO 302 especially improves performance in:

- › Textured soft-touch effects independent on the used binders
- › Matting
- › Good recoatability
- › Excellent mechanical and chemical resistance
- › Temperature stable up to 160 °C
- › Anti-Blocking
- › Insoluble in common solvents
- › Flexibilization

■ Dosage

5 - 20 % (calculated on the complete formulation) depending on binder, application and required properties. The optimum dosage depends on the binder system and the desired surface character. It must be determined by own tests for the respective system. Higher addition levels lead to stronger effects and increased flexibility. As Deuteron SO 302 is highly compatible, even very high dosages up to 40 % can be used to generate extreme effects.

For cross-linking with isocyanates, a significantly over-stoichiometric dosage is recommended.



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■ Processing

Deuteron SO 302 is easy to disperse and can be incorporated using a common high-speed stirrer. It is possible to add Deuteron SO 302 at any stage of the production process, even post addition to adjust properties at a customer line is possible.

It is recommended to pay attention to prevent any drying of Deuteron SO 302. A drying process leads to formation of highly stable and almost non-dispersible agglomerates. Any agglomerates should be removed by sieving of the finished system.

■ Storage Conditions

12 months in original sealed containers at room temperature and dry conditions. Storage temperature should not exceed 35 °C. Deuteron SO 302 can show some phase separation after storage. Thus, it is highly recommended to stir the material before use.

■ Package Sizes

Plastic Drum (30 kg net)
Plastic Drum (220 kg net)

■ Safety

According to Regulation (EC) No. 1272/2008
Deuteron SO 302 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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