



DEUTERON SO 300

Soft-touch and Matting Additive for
Water Based Systems

Deuteron®
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■ Product Characteristic

Active content	45 %
Density	approx. 1.0 g/cm ³
Viscosity	approx. 250 mPa*s
Particle size dv50	approx. 8.0 µm
Particle size dv90	approx. 18 µm
OH-content	2.1 % (calculated on the solid content)
Appearance	yellow suspension



■ Product Description

Deuteron SO 300 is a liquid preparation of fine elastomer particles in water. The used elastomer particles impart a rubber-like feel to any coating film. Depending on the addition level it is possible to achieve pleasant soft touch effects even in extreme hard and brittle systems without compromising the film toughness.

The use of Deuteron SO 300 and its unique soft-feel approach eliminates the need for special soft and elastic resins as it works with almost any given system.

This opens up a wide range of formulation freedom to design soft-touch systems with outstanding durability. Deuteron SO 300 is an easy to use liquid that is suitable for the use in auto dosage units.

■ Applications

Deuteron SO 300 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 300 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 300 especially improves performance in:

- 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

Typical addition range: 1.0 % - 5.0 %

The required dosage level highly depends on the system and the desired curing speed. Thus, it is highly recommended to determine the needed addition level by a practical ladder study.

Please note that there are several options to further improve the performance of our Deuteron photo initiators. This includes the use of co-catalysts (e.g. ITX), catalysis by Copper-naphthenates, increasing the curing temperature and addition of multifunctional alcohols (e.g. TMP). For details please refer to our UV initiator brochure.



Technical Data Sheet

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■ Processing

10 - 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 300 is highly compatible, even very high dosages up to 50 % can be used to generate extreme effects. For cross-linking with isocyanates, a significantly over-stoichiometric dosage is recommended.

■ Storage Conditions

12 months in original sealed containers at room temperature and dry conditions. Storage temperature should not exceed 35 °C. Deuteron SO 300 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 300 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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