



Technical Data Sheet

DEUTERON MK, MK-F, MK-F6

Organic duromeric Matting Agents

Deuteron[®]
ADDITIVES TO YOUR SUCCESS



Product Characteristic

Deuteron	MK	MK-F	MK-F6
Density approx.	1.47 g/cm ³	1.47 g/cm ³	1.47 g/cm ³
Oil absorption approx. (DIN ISO 787/5)	325 g Palatinol N/100 g	278 g Palatinol N/100 g	251 g Palatinol N/100 g
Particle size dv50 approx.	6.3 µm	4.6 µm	3.5 µm
Particle size dv90 approx.	13.8 µm	10.6 µm	6.5 µm
OH-content approx.	0.27 %	0.27 %	0.27 %
Appearance	fine white powders		

Product Description

Deuteron MK products are micronized duromeric plastic powders based on PMU (Polymethyl urea). The unique synthesis of Deuteron MK matting agents leads to highly amorphous particle structures with a comparably high surface area (BET) – this property makes them excellent matting agents. Because of their highly compatible chemistry they can be used as high-performance matting agents in a wide variety of different applications and systems.

As organic polymers the Deuteron MK matting agents lead to an excellent balance between matting performance, viscosity and mechanical stability.

Applications

Deuteron MK matting agents can be used in almost all coating applications ranging from water borne and solvent borne to 100 % systems. They can be used as stand-alone additives or in combination with other materials to further improve their properties. Because of the wide range of available particle sizes the Deuteron MK range is suitable for thin and thick film applications.

The use of Deuteron MK matting agents especially improves the following properties:

- › Good matting effect
- › Low influence on viscosity
- › High mechanical and chemical resistance
- › High scratch resistance and resistance to polishing
- › Support of soft effects.
- › Temperature resistant up to over 200 °C, short-time up to over 300 °C
- › Pleasant touch (can range from "paper touch" to "soft feel")
- › Improved blocking resistance
- › Insoluble in solvents commonly used in coatings
- › Biodegradable

Dosage

Typical addition range: 1 %–15 %

The required dosage level highly depends on the system (e.g. binder type, additives, solvent content) and application parameters. Thus, it is highly recommended to determine the needed addition level by a practical ladder study.



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■ Processing

The PMU chemistry in general is highly compatible in a wide range of systems. Due to that Deuteron MK matting agents can be incorporated easily by a high-speed stirrer without the need for specific wetting agents or dispersing aids. They are shear stable in high shear processes but should not be ground in a bead mill.

■ Storage Conditions

24 months at room temperature and dry conditions. Storage temperature should not exceed 35 °C.

■ Package Sizes

Paper bag (10 kg net)

■ Safety

According to Regulation (EC) No. 1272/2008 Deuteron MK products are not classified as dangerous products and therefore do 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 agencies around the globe.

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



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