



Technical Data Sheet

DEUTERON MM 659 DEUTERON MM 669

Compound of Matting Agents

Deuteron[®]
ADDITIVES TO YOUR SUCCESS

Product Characteristic

Deuteron	MM659	MM669
Density approx.	1.6 g/cm ³	1.6 g/cm ³
Oil absorption approx.	238 g Palatinol N/100 g (DIN ISO 787/5)	183 g Palatinol N/100 g (DIN ISO 787/5)
Particle size dv50 approx.	7.4 µm	6.3 µm
Particle size dv90 approx.	17.1 µm	14.5 µm
Appearance	fine white powders	



Product Description

Deuteron MM 659 and MM 669 are synergistic compounds of organic duromeric PMU powders (Polymethyl urea) with inorganic matting agents. They are particularly suitable as matting agents for radiation-curable systems.

Deuteron MM 659 and Deuteron MM 669 are especially designed to show a high matting performance with low influence on the final coating viscosity – a key property in many 100 % UV curable systems.

Applications

Deuteron MM 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.

The use of Deuteron MM 659 and MM 669 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 feeling
- › Improved blocking resistance
- › Insoluble in solvents commonly used in coatings
- › Polymer content biodegradable

Dosage

Typical addition range:

100 % UV curable: 1 %–12 %

w/b or s/b UV: 1 %–10 %

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 MM 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 MM 659 and MM 669 are not classified as dangerous products 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 agencies around the globe.

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



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