

DEUTERON PMH M, PMH F

Organic matting agent / micronized thermoset

/ Chemical description

Polymethylurea

/ Physical Data

Deuteron PMH M, PMH F

Appearance	Fine white powder		
Oil Absorption approx.	180		
Specific Weight approx.	1.4 g/ml		
	PMH M	PMH F	
Particle size d50 approx.	7.7	6.8	µm
Particle size d90 approx.	17.0	14.5	µm



/ Properties

Deuteron PMH M and PMH F products are fine micronized, pure thermosets with a compact particle structure. Due to the fineness the products can be used as a matting additives in many applications in varnishes and coatings.

Even in higher dosages, the products specific oil absorption value does not lead to a considerable increase in viscosity. Flexibility of the coating will be spoiled only insignificantly by the use of Deuteron PMH M and PMH F as matting agents. Being a thermoset, Deuteron PMH M and PMH F increase the blocking stability of coatings in which the employed binder shows a tendency towards thermoplasticity. Deuteron PMH M and PMH F are resistant to most customary solvents used in the coatings industry. The products also offers good chemical resistances.

Deuteron PMH M and PMH F are resistant to temperatures above 200°C. Color fastness and weather resistance are excellent. The use in exterior applications is possible without limitations. The coatings are recoatable. Deuteron PMH M and PMH F are free of wax. It is possible to mix the Deuteron PMH M and PMH F products with waxes, SiO₂ or other fillers in every ratio. In certain fields of application the product's effectiveness in matting can be increased by combining it with small amounts of silica.

Deuteron PMH M and PMH F differ in the particle size distribution and the ration of the components. Deuteron PMH M and PMH F are being manufactured on a different production line than PMH C,

but they offer similar properties. Whether a direct replacement is possible or whether the dosage needs to be adjusted has to be checked by lab trials.

/ Application

Deuteron PMH M and PMH F can be used as matting agents in aqueous and solvent-based coating systems. A suitable matting agent combination can be created for solvent-free and radiation curing varnishes with the additional use of SiO₂. With its favorable oil absorption value the product is predestinated for coatings with high flexibility, e.g. coil coatings and leather finishes.

/ Dosage

The optimum dosage depends on the required degree of gloss and the character of the binder employed. The addition ranges between 1.0 and 7.0%. The optimum dosage should be determined by own trials.

/ Processing

Due to its excellent dispersing properties Deuteron PMH M and PMH F can be easily incorporated with a mechanical stirrer or dissolver. Attention has to be paid to a sufficient rate of shear. This also applies to aqueous lacquers systems. The use of a wetting agent is generally not necessary. Due to its good temperature resistance Deuteron PMH M and PMH F can also be added to the mill base.

/ Storage Conditions

Deuteron PMH M and PMH F can be stored for at least 24 months at room temperature and dry conditions.

/ Package size

Paper bag (15 kg net)

/ Safety Regulations

According to Regulation (EC) No. 1272/2008 Deuteron PMH M and PMH F are not classified as a dangerous product and therefore does not need to be labeled. Due to the fine fractions of the product, measures for dust protection must be heeded and the build up of electrostatic charge must be avoided.

/ Matting Agents (Powder) from our Portfolio

Deuteron MK, MK-F, MK-F6

Deuteron PMH C

Pergopak M3

Pergopak M4

Deuteron MM 659

Deuteron MM 669

Deuteron MM 680

Deuteron MM 682

Deuteron MM 684

Deuteron MM 823

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