

PRODUCT INFORMATION

WARADUR® ESM

Product Description

WARADUR® ESM is a hard, special ester wax with a crystalline structure, mainly consisting of esters of montanic acids with mono- and multihydroxyl alcohols. Montanic acids are straight-chained monocarboxylic acids with a chain length in the range of mainly C16 – C32. The corresponding esters exhibit chain length in the range of mainly C34 – C66.

General Advantages

WARADUR® ESM was designed to combine the lubrication properties of oleochemical esters with those of montan wax esters. The typical advantages of montan wax esters are maintained.

Examples of Use

Lubricants, mould release agents, dispersing agents, process auxiliaries for: PA, PP, PU/TPU, PET, PC, PS, ABS, PVC, TPE, POM, thermosets, polymer blends

Delivery Specifications *

Characteristics	Unit	Target value	Method
Acid value *	mg KOH/g	28 – 38	ISO 2114
Drop point *	°C	80 – 85	ASTM 3954
Saponification value	mg KOH/g	approx. 148 – 180	ISO 3681
Colour	–	yellow	AA 3.2.1.505
Viscosity @ 120 °C	mPas	approx. 20	AA 3.2.1.520
Density	g/cm ³	1.00 – 1.02	Ph. Eur. 2.2.5

Packaging and Handling

Physical form	Flakes, also available as powder
Packaging	Paper bag or Big Bag
Storage	Store at ambient temperature on a dry place. Protect from heat/overheating and direct sunlight. The maximum shelf life is 5 years after production. Thereafter, tests of the chemical characteristics are recommended. After delivery, a minimum remaining shelf life at the customer of 1.5 years is warranted.

Safety

WARADUR® ESM is not classified as carcinogenic, mutagenic or reprotoxic; no health or environmental hazards are known, provided it is applied in industrial and professional settings.

Delivery Time and Availability

Standard delivery time: 2 – 3 weeks. Preconditions can be met for achieving shorter delivery times on standard products when demanded by the market.

Remark: Voelpker's R&D department is permanently developing new special wax blends for the preparation of aqueous dispersions. Please contact us for your individual requirements.

Legislation

Food contact legislation:

- Product for technical applications

Other legislation:

- REACH, RoHS and CONEG compliant

For further information, please contact application@voelpker.com.