

**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 C28 – C32. The corresponding esters exhibit chain length in the range of mainly C58 – C66.

## General Advantages

WARADUR® ESM is easy to saponify and emulsify and can be buffed to a high gloss. Also provides good paste- and dispersion forming properties with organic solvents.

## Examples of Use

WARADUR® ESM can be used to manufacture polishes based on aqueous emulsions of (saponified) wax with or without emulsifiers. It is used in its saponified form in leather care products, polishes and abrasive pastes (e.g. car polishes), etc. It performs particularly well in co-emulsions of wax and solvents in water. WARADUR® ESM can be used in combination with microcrystalline waxes, paraffin wax, hydrogenated plant oils and others.

## Delivery Specifications \*

Characteristics	Unit	Target value	Method
Acid value *	mg KOH/g	28 – 38	ISO 2114
Saponification value *	mg KOH/g	148 – 180	ISO 3681
Drop point *	°C	80 – 85	ASTM 3954
Colour	–	yellow	AA 3.2.1.505
Viscosity @ 120 °C	mPas	approx. 20	AA 3.2.1.520
Density	g/cm <sup>3</sup>	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 minimum remaining period is 1.5 years and is defined as the minimum shelf life at the customer. Thereafter, tests of the chemical characteristics are recommended. The maximum shelf life of 5 years is indicated.

## Safety

WARADUR® ESM

- is made from fossil and renewable biological sources
- 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:

- RoHS and CONEG compliant
- REACH compliant

For further information, please contact [application@voelpker.com](mailto:application@voelpker.com).