PRODUCT INFORMATION

WARADUR® E

Product Description

WARADUR® E is a hard ester wax with a crystalline structure, consisting of esters of montanic acids with 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® E is easy to saponify and emulsify (pressureless vessel) and can be buffed to a high gloss. Also provides good paste- and dispersion forming properties with organic solvents.

Examples of Use

- WARADUR® E 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® E can be used in combination with microcrystalline waxes, paraffin wax, hydrogenated plant oils and others.
- Other applications: paper coating, metal work, compacting aids in powder metallurgy.

Delivery Specifications *

Characteristics	Unit	Target value	Method
Acid value *	mg KOH/g	15 – 20	ISO 2114
Drop point *	°C	82 – 88	ASTM 3954
Saponification value	mg KOH/g	approx. 140 – 160	ISO 3681
Colour	–	pale yellow	AA 3.2.1.505
Viscosity @ 120 °C	mPas	15 – 20	AA 3.2.1.520
Density	g/cm³	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® E
- is made from a fossil biological source
- reached the criteria for inherent biodegradability (OECD Guideline 301 D, Closed Bottle Test)
- 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.

Legislation

Food contact legislation:
- FDA 175.105 Adhesives
- FDA 177.2600 Rubber articles intended for repeated use
- FDA 178.3770 For use in lubricants in the fabrication of vinyl chloride plastic food contact articles
- Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food

Other legislation:
- REACh, RoHS and CONEG compliant
- Listed in all relevant national inventories

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

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