PRODUCT INFORMATION

WARADUR® OP*plus*

Product Description

WARADUR® OP*plus* is a montan wax based special wax consisting of esters of montanic acids with multihydroxyl alcohols. In addition, WARADUR® OP*plus* contains an increased amount of calcium montanate, and fatty acid salts and -esters.

General Advantages

WARADUR® OP*plus* is suitable for engineering plastics, thermosets, PVC, etc. WARADUR® OP*plus* is extremely versatile and suitable for a wide range of plastics applications as a multi-purpose additive.

The use of WARADUR® OP*plus* can lead to the following positive effects in the processes compounding, injection moulding and extrusion/blow moulding:
- Reduction of mould temperature in injection moulding
- Reduction of melt temperature (compounding, injection moulding, extrusion/blow moulding)
- Increasing injection speeds in injection moulding
- Realisation of higher filler contents under the same processing conditions
- Realisation of long flow paths
- Easy processing in tools that implement very different component thicknesses
- Improvement of the surface quality of injection moulded parts

Examples of Use

- Thermoplastics: PA, PBT, PET, PC, PVC, ABS, PLA, styrenics
- Thermosets: epoxy resins, phenolic resins, polyurethane
- Dispersing agents for colour masterbatches and filled (talc, glass fibre) plastics
- We recommend the using from 0.3 to 0.6 %.

Delivery Specifications *

Characteristics	Unit	Target value	Method
Acid value *	°C	< 10	ISO 2114
Melting range *	°C	approx. 88 – 114	DSC
Solidification range	°C	approx. 92 – 65	DSC
Colour	–	pale yellow	AA 3.2.1.505

Packaging and Handling

Physical form	Powder, compactate
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® OP*plus*
- is made from fossilised plant wax
- 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

- Commission Regulation (EU) No 10/2011 of 14 January 2011 on plastic materials and articles intended to come into contact with food
- All components are REACh compliant
- For further information, please contact application@voelpker.com

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