

Product Data Sheet Lucocell® FG3000

Product description

Lucocell® FG3000 micro grains – cellulose additives for SMA – Stone Mastic Asphalt or Split Mastic Asphalt, which is used as finish for all road types, including motorways with high frequency traffic, fast roads, roads with high traffic loads, bike paths and sidewalks. Due to their 3D structure, cellulose fibres maintain a comparatively high viscosity of bitumen, thus preventing its seepage and formation of asphalt mix segregation at high temperatures during storage, transport and SMA placing. At the same time they enable creation of a thicker bitumen layer around each rock particle, thus preventing oxidation, moisture penetration and lifting or cracking of the aggregate.

Lucocell® FG3000 microgranules of cellulose fibre is very safe and easy in handling. We strongly recommend to pay attention to the below mentioned aspects of use. The advantage of microgranules is the quicker distribution in the mineral mass during dry mixing. Microgranules release Lucocell® FG3000 fibres easily and safely for increased efficiency and improved production quality. Lucocell® FG3000 microgranules are ideal for use in automated batching.

Lucocell® FG3000 is a bulky material with advanced properties and quick and safe dispersion in the asphalt mixer. It can be added manually or by means of standard dosage systems. Because of the nature of the product cellulose fibres may not be exposed to water and mix temperatures higher than 200°C.

Packaging and Storage

Lucocell® FG3000 is delivered in Big-Bags (500/1000 kg) packed on wooden pallets, shrink wrapped and additionally

protected with a PE rain cover. Even this packaging protects the material from rain we recommend dry storage under roof. Please make sure that the rain cover is placed back on the material after part of it has been used. Pallets without damages on the packaging can be stored in the warehouse in dry condition for 2 years.

Dosage

For dosage of Lucocell® FG3000 shall be introduced centrally into the mixer. The standard dosage rate of cellulose fibre is 3,0-4,0 kg per ton of asphalt mix. To achieve this result batch-sized bags, gravimetric or volumetric fibre blowing systems can be used. A gravimetric system is preferred for receiving the records about the accurate quantity of fibres in the mix. If a volumetric system is used, it should be calibrated frequently.

Mixing Sequence

The microgranules of Lucocell® FG3000 shall be added centrally into the mixer approx. 5-15 seconds prior to the addition of bitumen and even distribution of the fibres in the mix. In case the fibres are pre-dispersed by means of a automatic fibre blowing device the dry mixing of the fibres might not be necessary.

The total mixing time for SMA according to the German recommendations (Leitfaden Splittmastixasphalt, Dezember 2000) should be minimum 53 seconds. This time includes 8 seconds for discharging the mixer.

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Technical Data

Character	Value	Unit
Appearance	Grey granule	-
Bulk density	Approx. 450	g/l
Basic fibre	Value	Unit
Average fibre length	Approx. 1100	µm
Average fibre diameter	Approx. 45	µm
Typical screen analysis	Value	Unit
Less than 2500µ	100	%
Less than 800µ	Min. 55	%
Less than 200µ	Min. 30	%

These standard values are typical values and should not be regarded as specifications.

Note

The information provided in this document is based on our product tests and present technical knowledge. It does not release purchasers from the responsibility of carrying out their receiving inspections. Neither does it imply any binding assurance of suitability of our products for a particular purpose. As LUCOBIT cannot anticipate or control the many different conditions under which this product may be processed and used this information does not relieve processors from their own tests and investigations. Any proprietary rights as well as existing legislation shall be observed.