

K-CELL

Pelletized blend of cellulose fibers and bitumen

Technical Data Sheet

The production of some special asphalt mixtures requires a copious amount of binder compared to other traditional asphalt mixtures; however, due to the high binder content, a form of separation - also known as binder run-off - must be avoided. K-CELL is added to the asphalt mixture as a stabilizing additive to prevent binder run-off. The asphalt surface made with K-CELL shows a high resistance to deformation and a longer life, even with a very high share of heavy traffic.



ADVANTAGES

- ✓ Preventing separation
- ✓ No mastic build-up
- ✓ High viscosity of binder
- ✓ Increasing traffic volume
- ✓ Increasing axle loads
- ✓ Increasing resistance against cracking
- ✓ Increasing rutting resistance
- ✓ Increasing mechanical stability

HOW TO IT WORKS

Due to their 3D structure, cellulose fibers maintain a comparatively high viscosity of the bitumen. Thus, bitumen seepage and asphalt mix segregation at high temperatures is prevented especially during storage, transport and asphalt mixture laying. At the same time, **K-CELL** enables the formation of a thicker bitumen layer around each aggregate particle, thus mitigating oxidation, moisture penetration and lifting or cracking of the aggregate.

HOW TO USE AND DOSAGE

K-CELL fiber pellets ensure that the high amount of binder can be stabilized in the mix to avoid the draining of binder and mastic from the mineral aggregates. The exact dosing amount depends on the type of asphalt mixture. For the production of SMA (stone mastic asphalt), **K-CELL** is used in a dosage of 0,3% by weight respectively 3,0 kg per 1 ton of asphalt mixture. **K-CELL** should be added into the mixer approx. 5-15 seconds prior to the addition of the binder for even distribution of the fibers in the mix.



COMPOSITION

K-CELL is a pelletized blend of a recycled cellulose fibers and bitumen.

PRODUCT PROPERTIES

Appearance at 25°C	: Pellets
Average pellets diameter	: 4 mm
Color	: Dark brown
Smell	: Slight
Bulk density at 25°C	: 450-500 kg/m ³
Average fiber length	: approx. 1.000 µm
Average fiber diameter	: approx. 50 µm
Moisture	: < 5%
Oil absorption	: ≥ 5 times

PACKAGING, STORAGE AND HANDLING

K-CELL is delivered in two Big-Bags overlapping (500 kg each) packed on wooden pallets, heat-shrink and protected by a PE rain cover. It is not harmful for handling or for transport.