

Product Data Sheet Lucolast® 7010AC

Product description

Lucolast® 7010AC is a polar copolymer consisting of ethylene and butyl acrylate with low crystallinity.

Product properties

Addition of Lucolast® 7010AC to bitumen increases the range its viscosity and broadens the range of plasticity. Depending on the proportion of Lucolast® 7010AC that was added the minimum value of the Fraass breaking point of Lucolast® 7010AC modified bitumen decreases and the ring and ball softening point increases.

Penetration values decline accordingly. Ductility determined according to DIN EN 12591 decreases, however, the values ascertained for the so-called ductility at low temperatures are more favourable than those for standard bitumen with-out addition of Lucobit.

Product advantages

Compared with other standard binder Lucolast® 7010AC displays significant advantages in improving resistance to deformation. Rut formation test at high temperatures demonstrated that asphalt can bear a two- to three-fold load when modifying it with thermoplastics or altering binder viscosity by adding Lucolast® 7010AC. This does not impair the low-temperature performance of Lucolast® 7010AC, but rather improves it.

Applications

Even relatively small amounts of PmB based on Lucolast® 7010AC in asphalt mixtures improve:

- resistance to mechanical stress, in particular deformation and wear
- stability/rigidity and reduce the tendency to flow, when hot and under load
- low temperature flexibility
- ageing behaviour

Examples for application:

- s-wearing courses to ZTV-Asphalt - StB
- poured asphalt, also on sloping surfaces (ramps)
- stone mastic asphalt
- special asphalt surfaces, e.g. porous asphalt thin
- bituminous wearing courses (hot laying)

Processing into PmB

Bitumen is mixed homogeneously with Lucolast® 7010AC at the temperatures range 165 °C to 195 °C and is then ready for use. Depending on mixing intensity, the time required to mix large quantities (approx. 20 t) is 1 - 3 h. The usage of a highspeed shear mixing unit leads to a higher quantity of mixture. In order to avoid a possible phase separation a continuous mixing process is required.

Environmental compatibility

Lucolast® 7010AC is environmentally sound in manufacture and processing, free of plasticizers and chlorine, and not harmful to health, water, soils, or plants.

Packaging

Granules: 25 kg bags

Storage

Store cool and dry protected from direct sunlight. Other storage conditions can influence the quality of the product and the packaging.

It is recommended to use the product within 2 years.