

Lucolast® 7010

乙烯丙烯酸丁酯共聚物

Lucobit AG

产品说明

Product description

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

Product properties

Addition of Lucolast 7010 to bitumen increases its viscosity and broadens the range of plasticity. Although the minimum value of the Fraass breaking point of Lucolast 7010 is as low as for unmodified standard bitumen, the ring and ball softening point increases considerably, depending on the proportion of Lucolast 7010 that was added.

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 usually more favourable than those for standard bitumen without addition of Lucolast 7010.

Product advantages

Compared with other standard binder Lucolast 7010 displays significant advantages in improving resistance to deformation. Rut formation tests 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 7010. This does not impair the low-temperature performance of Lucolast 7010, but rather improves it.

Applications

Even relatively small amounts of PmB based on Lucolast 7010 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 7010 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 high speed 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 7010 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.

基本信息				
特性	低温下的柔性 中等硬度	共聚物	环保	良好的稳定性
用途	沥青改性			
物理性能		额定值	单位制	
密度				
-- 1		0.924		g/cm ³
-- 2		1.00 到 1.10		g/cm ³
表观密度		0.50		g/cm ³
机械性能		额定值	单位制	
伸长率 (断裂, 23°C)		860		%
弹性模量		62.0		MPa
热性能		额定值	单位制	
Softening Point - R&B; ³		> 55		°C
补充信息		额定值	单位制	
Ductility ⁴		> 150		mm
Embrittlement Range				°C
FraaB Breaking Point ⁵ (25°C)				°C
Penetration Depth ⁶		2.50 到 5.50		cm
Softening Range		80 到 100		°C
备注				
1.	23°C			
2.	23°C; Mixture of Bitumen B50/70 and 2,4%; Lucolast 7010-Bitumen			
3.	Mixture of Bitumen B50/70 and 2,4%; Lucolast 7010-Bitumen			
4.	Mixture of Bitumen B50/70 and 2,4%; Lucolast 7010-Bitumen			
5.	Mixture of Bitumen B50/70 and 2,4%; Lucolast 7010-Bitumen			
6.	Mixture of Bitumen B50/70 and 2,4%; Lucolast 7010-Bitumen			