Lucolast€ 7010

€ • ¸ • ƒ „ … † ‡ ˆ

Lucobit AG

€ • ¸ ƒ

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 higherquantity of mixture.
In order to avoid a possible phase seperation 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.

‰ Š ‹ Œ			
• Ž	• • ‘ ’ “ Ž š › œ •	† ‡ ˆ	” • – — ’ ˜ ™ Ž
ž Ÿ	¡ ¢ Ž		

ˆ £ Ž ¤	¥ ™ ¦	§ ¨ ©
ª •		
-- [1]	0.924	g/cm•
-- [2]	1.00 « 1.10	g/cm•
¬ - ª •	0.50	g/cm•

® ¯ Ž ¤	¥ ™ ¦	§ ¨ ©
° ± ² (³ ´ , 23€C)	860	%
µ Ž ¶ ·	62.0	MPa

¸ Ž ¤	¥ ™ ¦	§ ¨ ©
Softening Point - R&B; [3]	> 55	€C

¹ º ‹ Œ	¥ ™ ¦	§ ¨ ©
Ductility [4]	> 150	mm
Embrittlement Range		€C
FraaB Breaking Point [5] (25€C)		€C
Penetration Depth [6]	2.50 « 5.50	cm
Softening Range	80 « 100	€C

» ¼	
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