

# LUCOLAST® 7010

THE ADDITIVE TO POLYMER MODIFICATION  
OF BITUMEN



... make better roads

# LUCOLAST® 7010 MODIFIED BITUMEN – THE RIGHT CHOICE FOR YOUR ASPHALT



## THE PRODUCT

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

Addition of Lucolast® 7010 to bitumen increases viscosity and broadens the plasticity range. While Fraass breaking points of Lucolast® 7010 modified bitumen are comparable to unmodified standard bitumen, the ring and ball softening point increases considerably (depending on the proportion of Lucolast® 7010 added).

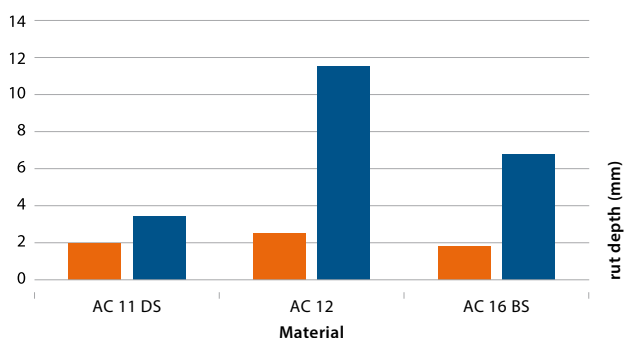
## THE APPLICATIONS

- 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)

## TECHNICAL DATA

Below figures show the positive effects of dosing Lucolast® 7010 to various asphalt cements as well as to bitumen 50/70.

Figure 1: Decrease of rut depth with dosing Lucolast 7010



## PREPARATION OF PMB

Bitumen is mixed homogeneously with Lucolast® 7010 within a temperature range of 165 °C to 195 °C. Depending on mixing intensity, the time required to mix large quantities (approx. 20 t) takes about 1 - 3 h. The usage of a high- speed shear mixing unit leads to a higher quantity of product. In order to avoid a possible phase separation, a continuous mixing process is required.

## THE ADVANTAGES

- Raised binder softening point
- Decreased binder penetration
- Resistance to mechanical stress, in particular deformation and wear
- Improved low temperature flexibility
- Excellent ageing behaviour

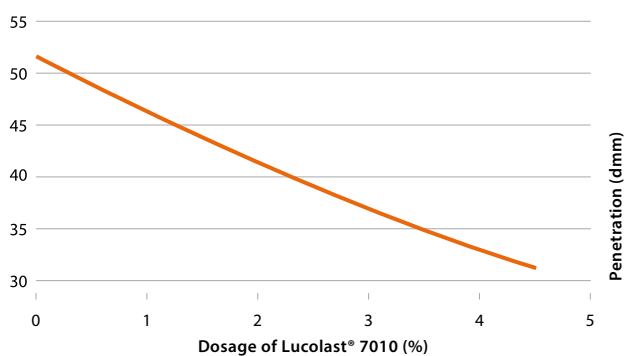
Rutting test of various non-modified and Lucolast® 7010 modified asphalt concrete (AC) types according to TP-A FGSV at 60 °C in an air basin with a rubber wheel after 20.000 load cycles.

● modified with Lucolast® 7010    ● non modified

LUCOLAST® 7010 IS THE FAVORITE MODIFIER FOR THE ASPHALT INDUSTRY. IT IS IN USE FOR MANY YEARS IN NUMEROUS COUNTRIES ALL OVER THE WORLD.

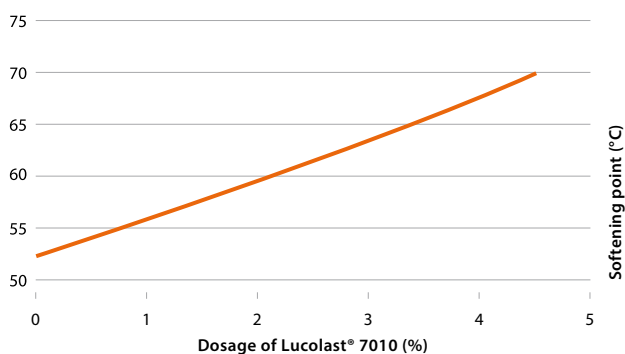


Figure 2: Decrease of needle penetration with dosing Lucolast 7010 > less rutting



Penetration of unmodified and Lucolast® 7010 modified bitumen 50/70 as a function of dosage of Lucolast® 7010 according to DIN EN 1426

Figure 3: Increase of softening point with dosing Lucolast 7010 > less rutting

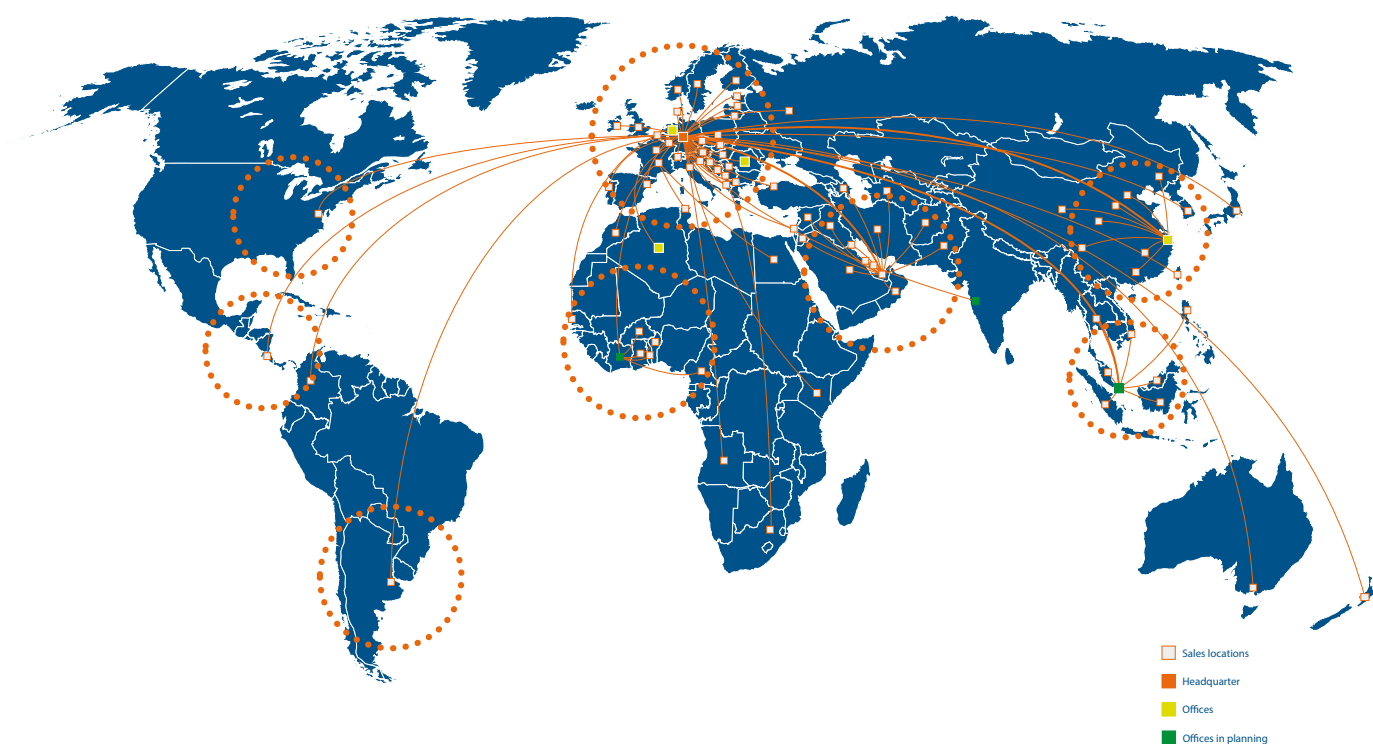


Softening point of unmodified and Lucolast® 7010 modified bitumen 50/70 as a function of dosage of Lucolast® 7010 according to DIN EN 1427



## LOCATIONS

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