



Additive for optimisation of asphalt

## Use

Colzuphalt® is an additive for optimising asphalt when the adhesion between mineral and binder as well as the processing properties of the asphalt mixture are to be improved. At the same time, Colzuphalt® serves to lower the laying temperature of asphalt mix.

## Properties

Colzuphalt® is a liquid, surface-active wetting agent.

The use of Colzuphalt® has already proven its worth since the end of the 1960s on many exposed traffic routes, especially bridge decks.

- Temperature reduction of the mix up to 30 °C possible
- Adhesive to enhance the adhesion of the binders to the mineral
- Improvement of the processing properties
- Very good compaction of the mix at reduced processing temperature
- No "displacement" of the mix during the rolling process

## Mode of action

Colzuphalt® is a reactive additive with multiple effects. First, it acts as a wetting agent, i.e. the surfaces of the minerals, especially in the filler area, are coated with the additive in such a way that the surface tensions change in favour of a better coating with the binder (lipophilic). Colzuphalt® then reacts under thermal influence to form a highly effective bonding agent. The adhesion between bitumen and mineral is permanently improved in the asphalt mixture. The minerals thereby acquire hydrophobic and oleophilic properties, which also lead to an increase in cohesion in the asphalt. Both reaction phases simultaneously trigger the temperature reduction with better workability.

## Application instructions

Colzuphalt® is a slightly viscous liquid at room temperature, which can be added to the mixer in portions either via a dosing pump or via individual easily meltable plastic bags. The amount to be added is 0.15 to 0.20 % based on the mix. In order to ensure efficient distribution of Colzuphalt® with a constant mixing time, the following mixing sequence has proven successful.

The additive should be added immediately after dosing the grits and sands in the mixer. Filler and bitumen are to be dosed afterwards.

## Storage, reaction time

Colzuphalt® is a reactive additive which requires a certain residence time in the hot mix to act as an adhesive. This reaction time is approx. 2 hours at a mix temperature above 120 °C. This already includes the deadlines from the throughput mixer, ensiling, transport to the construction site and processing on site. The Colzuphalt® optimised mix retains its special properties even when stored in the silo for several hours.

### Central Sales

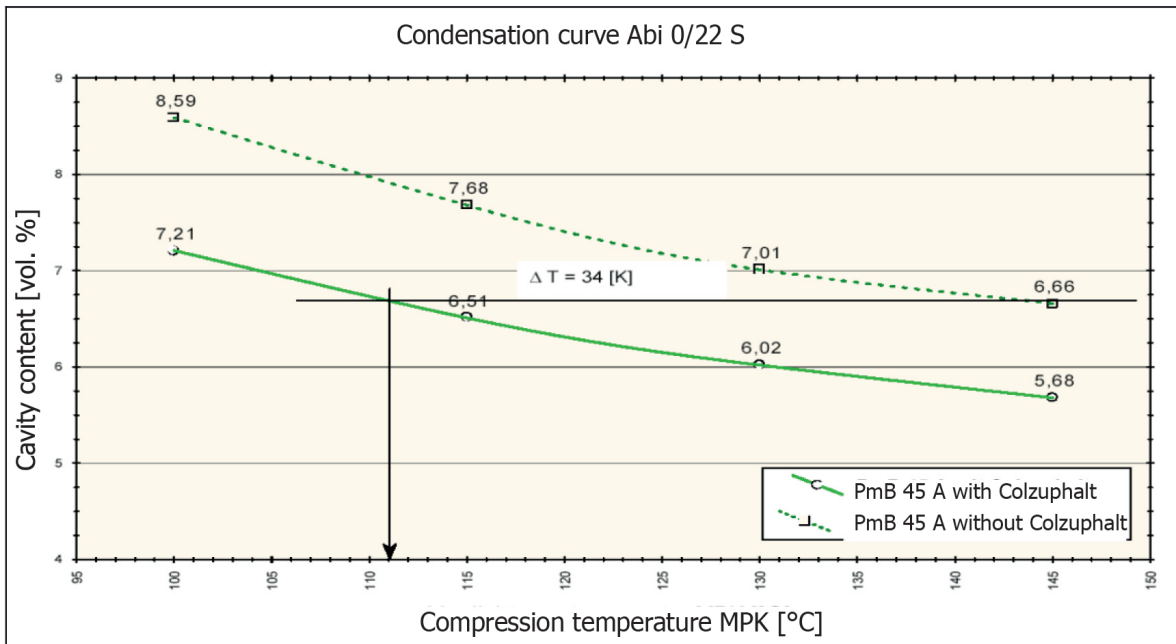
Dortmunder Gußasphalt GmbH & Co. KG

✉ Am Hafenbahnhof 10 ■ 44147 Dortmund ■ Germany

☎ +49 231 395797 - 37    @ info@dga.de    🌐 www.dga.de



## Example of two compaction curves of asphalt binder (Source: Ingenieurbüro Nies, Cologne)



### References: (excerpt from older buildings, Ing Büro Nies)

- Rheinkniebrücke Düsseldorf, in original condition since 1968 without maintenance measures
- Bridge over the Neuss marshalling yard 1972
- Rheinkniebrücke Düsseldorf Oberkassel 1972
- Europa Bridge Innsbruck 1974, over 13 years until bridge widening
- Rhine Bridge Frankenthal 1971
- Motorways, mains roads and country lanes in the NRW region
- Test track B106, Ludwigslust 2004

This product information corresponds to our latest available information. The processor is obliged to test the suitability and application options for the intended purpose. We shall be pleased to advise if you have any questions about our product. Our Terms and Conditions of Business apply, which can be found at [www.dga.de](http://www.dga.de).

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