

# LUCOBRIDGE<sup>®</sup> PV-BIT

WATERPROOFING MEMBRANES FOR STEEL BRIDGES

WITH LUCOSOL<sup>®</sup> VE, PROCESSING MANUAL



... make better bridges

Lucobridge® PV-Bit (complying with ZTV-ING part 7, Section 1) is with Lucosol® VE (epoxy resin priming coat) a waterproofing system for steel bridge. Lucobridge® PV-Bit, which is coated by 2,5 mm polymer modified bitumen on top and 1,0 mm fleece underneath, can be torched on steel deck. Finally a wearing course of mastic asphalt: 7-8 cm thick or AC or SMA can be laid directly on it.

1



## MILL DOWN SKIMMING OF OLD ASPHALT OF THE STEEL BRIDGE AND PREPARATION FOR THE SANDBLASTING

The old asphalt needs to be milled down. It is necessary, that the surface is free of residues, bitumen, or other materials.

2



## PREPARING THE STEEL DECK

The steel deck has to comply with the requirements of ZTV-ING part 7, clause 4. Following methods for the preparation of the steel bridge decks apply (see DIN 55928, part 4) which may be combined:

- Mechanical surface preparation (de-rusting) by (picture 2)**
- dry blast cleaning with hardblasting abrasives or
  - steel ball blast cleaning to the grade SA 2 ½

If structural defects were found, check it and repair it.

3.1



## PRIMER AND CORROSION PROTECTION ON STEEL DECK

### Binder:

Lucosol® VE is delivered in two parts

- part A = resin;
  - part B = hardener
- in the correctly proportioned mixing ratio.

### Mixing proportions of Lucosol® VE

- pbw part A >
  - pbw part B >
- see product data sheet

### First layer on steel deck: (picture 3.1)

- Complete steel deck has to be given a long term protection against corrosion by Lucosol® VE.
- Lucosol® VE (or Lucosol® corrosion), applied with a lambskin roller or paddel (minimum 200g/m<sup>2</sup>). Do not sanded.

Part B is completely poured into part A and the thoroughly mixed using an electric power stirrer, e.g. drilling machine with a stirring paddle, until a uniform mix has been achieved. Make sure that material in the edges and on the bottom is mixed in as well. Pour the mixed material into a clean container and mix again.

3.2



### Second layer on steel deck: (picture 3.2)

- Lucosol®, applied with a lambskin roller or paddel (minimum 1.250g/m<sup>2</sup>-1.500g/m<sup>2</sup>) and uniformly slightly broadcast with dried quartz sand (grain size 0.2-0.7mm)

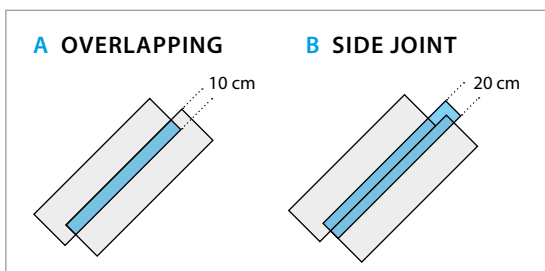
4



## LUCOBRIDGE® PV-BIT ON LUCOSOL® VE

Enroll the Lucobridge® PV-Bit in the primer of Lucosol® VE.

5.1



## SEAM JOINTS

Lucobridge® has to be torched on by flame. There is no additional substances necessary. Lucobridge® PV-Bit has to be combined in

**A. overlapping: ~ 10 cm**

or

**B. side joint: ~ 20 cm**

with hot air or torched on by flame.

5.2



Temperature, contact pressure and welding speed need to be aligned during the welding process.

6.1



## APPLY OF ASPHALT ON TOP OF LUCOBRIDGE® PV-BIT

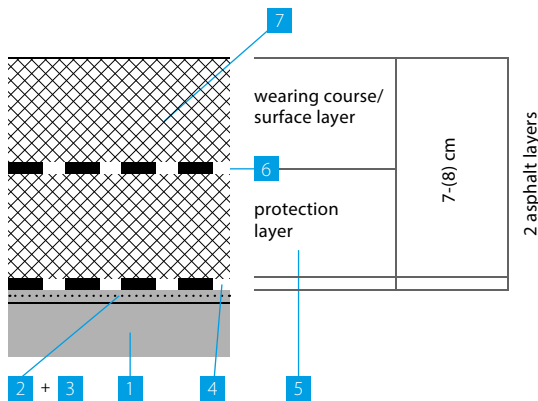
After the Lucobridge® PV-Bit is torched on to steel deck

- Mastic asphalt
  - AC
  - SMA or
  - porous Asphalt
- can be laid directly on it.

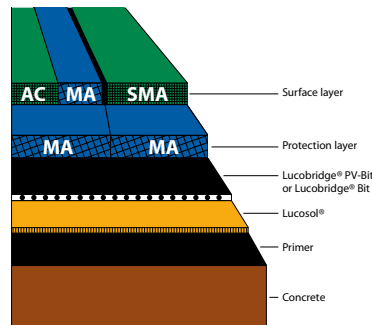
6.2



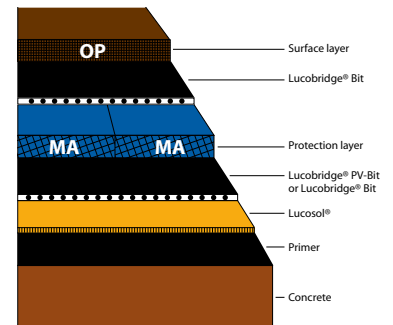
# LUCOBRIDGE® PV-BIT FOR STEEL BRIDGES WITH LUCOSOL® VE



1. ONE LUCOBRIDGE® MEMBRANE



2. TWO LUCOBRIDGE® MEMBRANES



- 1 = steel deck
- 2 = corrosion layer
- 3 = adhesive / second layer
- 4 = Lucobridge® PV-Bit
- 5 = protection layer e.g. mastic asphalt
- 6 = Lucobridge® (for head insulation or waterproofing under Porous Asphalt)
- 7 = wearing course/surface layer e.g. mastic asphalt, AC, SMA or Porous Asphalt.

## SEAL-MASTER



- Flexible and functional clarity designed machine with easy handling for laying bituminous sheeting.
- Hydraulic running gear
- Laying possibility for bituminous sheeting up to 60 m length
- Three-piece surface burner
- Great daily output

- Working Width: Up to 1000 mm
- Laying Speed: Up to 3,0 m/min
- Drive Speed: Up to 60 m/min
- Daily Output: Approx. 700 to 1200 m<sup>2</sup>/day
- Engine: Diesel engine
- Burner: Gas burner with igniting facilities and safety fittings
- Gas Supply: 11 kg liquefied petroleum gas bottle

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### Important notes

Notes regarding hazards. For working with our products, detailed health and safety information as well as detailed precautionary measures – e.g. physical, safety, toxicological and ecological data – can be found in the relevant material safety data sheets. All relevant and applicable regulations – e.g. regulations governing hazardous substances – must be observed. This information and, in particular, the suggestions relating to the application and end-use of our products, are based on our knowledge and experience in normal use, providing the products have been properly stored and applied. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of results achieved or liability arising out of any legal relationship whatsoever, can be inferred either from this information or from any advice offered by spoken word, unless we have been deliberately at fault or guilty gross negligence. The user shall be required to prove that he has duly and in full extend submitted to in writing all information necessary for to make a fair and proper assessment. The user must test the products suitability for the intended application and purpose. Reserves the right to change product specifications. The proprietary rights of third parties must be observed. Orders are accepted subject to our current terms and conditions of sale and delivery. The most recent edition of the Technical Data Sheet shall apply, copies of which must be requested from us.



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