

# Product Data Sheet: Basilisk Liquid Repair System ER7

**Basilisk Liquid Repair System ER7 is a 2-component low viscosity color- and virtually odorless organic solvent-free solution. It contains natural enzymes, organic and inorganic salts and is specifically developed for permanent sealing and waterproofing of cracks (up to 0.8 mm wide) in concrete structures and to decrease permeability of porous surfaces. The 1st component penetrates deep into cracks and pores, while application of the 2nd component results in gel formation sealing cracks and pores, and furthermore contributes to curing of the concrete surface.**

## ***Advantages in application***

- Permanently seals (static) cracks up to 0.4 mm in one treatment and up to 0.8 mm (max) in a minimum of 3 treatments.
- Densifies (damaged) porous surfaces.
- Penetrates deep into cracks and pores.
- Prevents chloride attack and delays rebar corrosion.
- Increases frost damage resistance.
- Rapid application allowing fast accessibility of structure.
- Solvent-free.
- Water vapour permeable.
- Has no aesthetic influence on surface or crack after complete treatment.
- Colourless.

## ***Application areas***

Particularly suitable for repair of concrete structures suffering from cracking and porous surface induced by drying, shrinkage and wear. Can be applied on porous surfaces or directly into cracks. Type, position, amount, and size of cracks must be inspected and established by expert concrete repair personnel prior to repair in order to ensure proper and functional application of Basilisk ER7. Understanding of cause of crack formation, early wear, possible reoccurrence and its consequences for functional performance and durability aspects of concrete structures requires inspection by trained specialists.

### ***Application***

Powder mixtures of both components must be dissolved separately in specified aliquots of warm water directly before application. Both liquid solutions must be transferred separately in (handheld) pressurized spray units. The first component 'A' must be applied in amounts sufficient to saturate occurring cracks and pores, while the second component 'B' must be applied sequentially (within 5 to 30 minutes after the last application of component 'A'). Application of component 'B' results in formation of a firm gel, covering and sealing cracks and pores, as soon as brought into contact with component 'A'. Cracks and pores of to be treated concrete surfaces must be clean and dry prior to treatment to allow effective penetration of the liquid repair system.

### ***Application volume***

Typical application volume of component 'A' is between 0.15 – 0.2 L / m<sup>1</sup> for crack repair and 0.3 – 0.5 L / m<sup>2</sup> for complete surface treatment, but both may vary depending on present crack- and pore number and volume. Specific consumption could be determined by means of a test area. The ratio of component 'A' to 'B' is 2:1 (same ratio as each set is supplied). Permanent sealing of pores and cracks up to 0.4 mm only requires a single treatment while larger cracks (up to 0.8 mm wide) require a minimum of 3 treatments with an interval of minimally 6 weeks. Used spray units must be emptied and thoroughly rinsed with lukewarm water directly after use to allow re-use of sprayers.

### ***Product characteristics***

- Description: powder mixtures components 'A' and 'B'.
- Penetration depth solution 'A': Class II  $\geq$  10 mm water absorption.
- Low viscosity, colourless liquid solution, organic solvent-free.
- Viscosity solution 'A': 1,1 mPa.s .
- Viscosity solution 'B': 1,1 mPa.s .
- Viscosity after mixing solutions 'A' and 'B': increasing to ca. 1000 mPa.s .
- Solid powder content after dissolution: 0- 2 %.
- Odour: mild yeast extract.
- Volume - weight ratio (kg/l) : 1,1.
- Boiling point solutions 'A' and 'B': 100 °C.
- Freezing point solutions 'A' and 'B': 0 °C.
- Flashpoint: non-flammable.
- Reaction time: ca. 6 weeks (at 20°C in situ temperature, lower temperatures will extend reaction time).
- Application temperature: product is functional in temperature range of 10 - 40°C.
- During reaction time sufficient moisture must be available to prevent the cracks/ pores from drying out. If moisture is not naturally available it must be provided actively and/or evaporation of moisture should be limited by using coverage or curing.

### ***Packaging***

Available in 2-component sealed containers:

- Powder mixture component 'A': 0.9 kg and 9 kg for respectively 5 L and 50 L solutions.
- Powder mixture component 'B': 0.5 kg and 5 kg for respectively 2.5 L and 25 L solutions.

### ***Storage conditions***

Powders are protected against moisture in sealed containers.

Containers holding mixed powders of both component 'A' and 'B': between 0°C and + 40°C.

Shelf life: 12 months (in sealed container).

Full content of container must be used at once when container has been opened.

### ***Waste disposal***

Excess and left over aliquots of both component 'A' and 'B' solutions can be mixed (beware of gel formation) prior to discarding. Waste must be labelled as 'alkaline- organic salt-containing, organic solvent-free, water based solution' and discarded according to national waste treatment regulations.

### ***Health and environmental aspects***

See Material Safety Data Sheet.