



SELF-HEALING AGENT (SHA)

COMPOSITION:

A bio-based granular additive that facilitates self-healing in concrete.

FUNCTIONALITY:

When cracks form and water infiltrates the concrete, the healing agent activates, filling cracks up to 1 mm with limestone.



REPAIR MORTAR (MR3)

COMPOSITION:

A ready-mix repair mortar with a strong bonding agent and fine-meshed crack-controlled behavior.

FUNCTIONALITY:

Easily applied manually or via shotcrete, it integrates self-healing technology to autonomously repair cracks and maintain structural integrity.



LIQUID REPAIR (ER7)

COMPOSITION:

A liquid formulation available as a two-component spray mixture

FUNCTIONALITY:

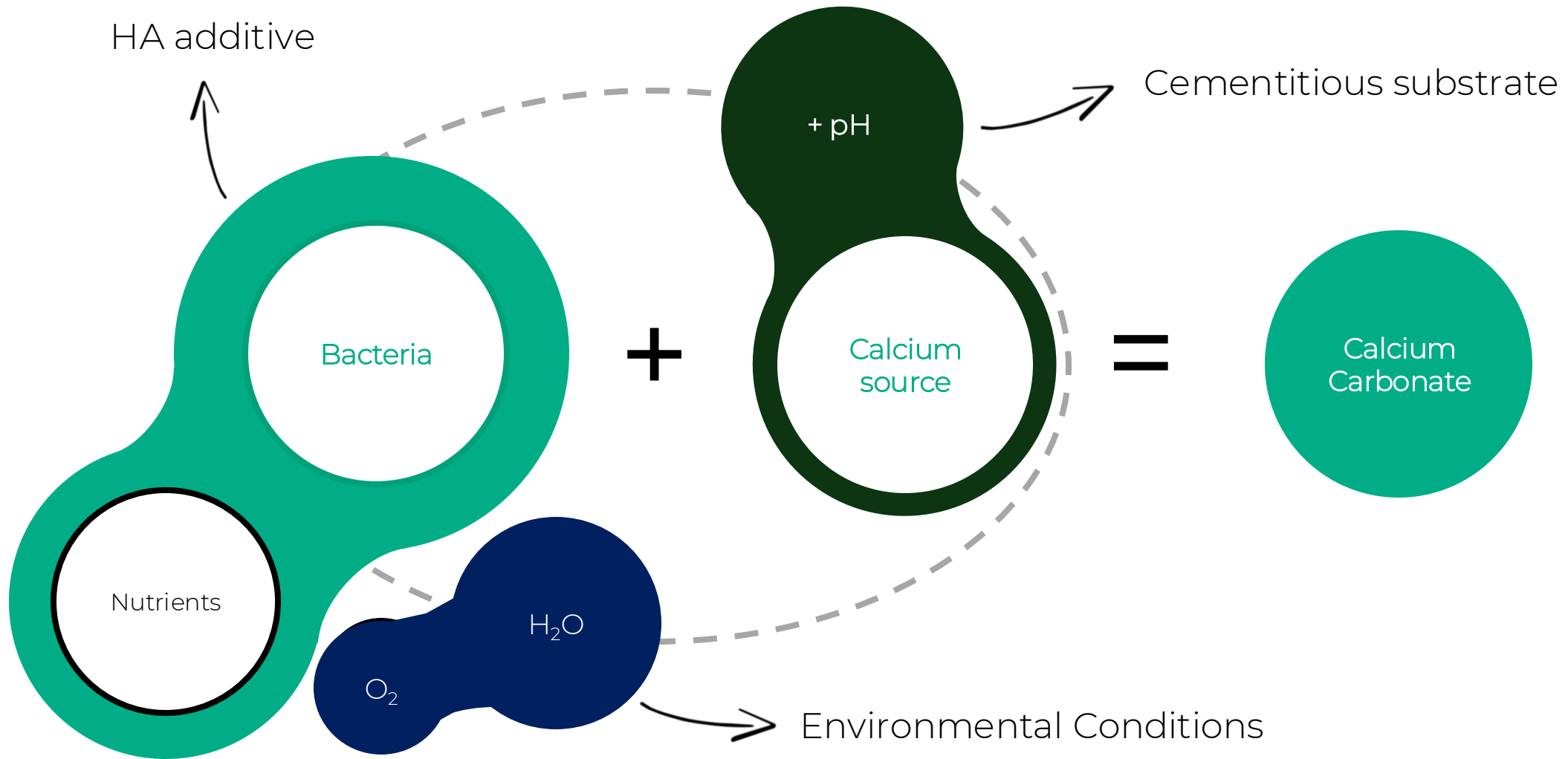
Penetrates into small cracks and pores, forming a gel that seals cracks up to 0.8mm and makes concrete watertight.

SHA

Self-Healing Agent Additive for fresh concrete



CE 0063 Basilisk-Contracting BV Molengraaffsingel 10 2629 JD DELFT 20 063-CPR-.....	
EN 934-2:2009+A1:2012 Set retarding admixture for concrete, mortar and grout; EN 934-2:T8	
Chloride ion content	≤ 0,10 % by mass
Alkali content	≤ 1 % by mass
Corrosion behaviour	Maximum corrosion current density 0,06 µA/cm ² and in conformity to EN 934-1:2008, 5.2
Compressive strength	At 7 days: Test mix ≥ 80 % control mix At 28 days: Test mix ≥ 90 % of control mix
Air content	Test mix ≤ 2 % by volume above control mix
Setting time	Initial: test mix ≥ control mix + 90 min Final: test mix ≤ control mix + 360 min
Dangerous substances	NPD





FIELD OF APPLICATION

- ✓ Tunnels & Bridges
- ✓ Liquid-containing reservoirs
- ✓ Basements & Parking garages
- ✓ Harbors & Airports
- ✓ Marine structures
- ✓ Flooring & Parking decks
- ✓ Buildings
- ✓ Concrete Roads



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BASEMENT ROYAL PALACE “HET LOO” NETHERLANDS

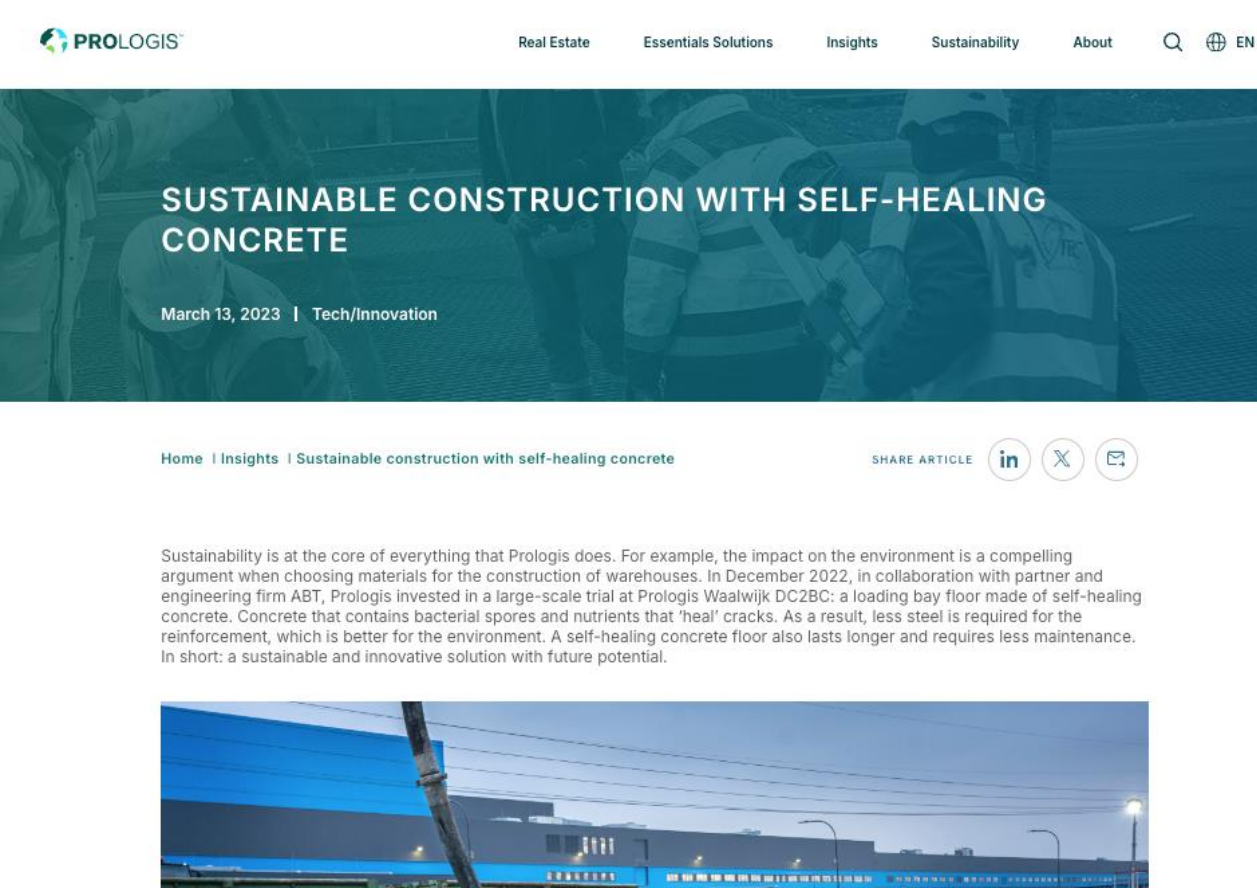
- Managing concrete cracks with Healing Agent in virgin concrete
- No water leakage membrane required
- Time schedule advantages ca. 6 weeks
- Ca. 5000 m³ concrete



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- Netherlands: Railway track barriers



- Prologis: self-healing concrete for loading docks combined with reduction of shrinkage reinforcement. Savings: 30 % of the steel rebar



Project Case reinforcement reduction

Hulstkamp building Rotterdam, The Netherlands



36% reinforcement reduction

10.6 tonnes CO2 savings

- Crack width from 0.10 mm - 0.17 mm
- Reduction rebar: 36 %
- CO₂ reduction: 49 kg/m³

MR3

Self-Healing Repair Mortar

(NEN-EN 1503-2:2004 - Products and systems for the protection and repair of concrete structures – Part 3: Repair Concrete and mortars)



CE 0063 Basilisk-Contracting BV Molengraaffsingel 10 2629 JD DELFT 20 063-CPR-101885/01	
EN 1504-3 Concrete repair product for technical repair based on hydraulic cement	
Compressive strength	Class R3
Chloride ion content	≤ 0,05 %
Adhesive Bond	≥ 1,5 MPa
Carbonation resistance	Passes
Thermal compatibility part 1	NPD
Capillary absorption	NPD
Dangerous substances	Comply with 5.4
Reaction to fire	Class A1

FIELD OF APPLICATION

- Crack repair
- Cover zone repairs
- Leakage problems
- Suitable for hand applied repairs
- Suitable for shotcrete application



OVERPASS A20 HIGHWAY

- Client: RWS/ VanGelder
- Basilisk Self-Healing Repair Mortar MR3
- Durable Repair
- Self Healing properties
- Year 2020



SCHIPHOL FLY-OVER

- Client: Schiphol Airport - Amsterdam
- Basilisk Self-Healing Repair Mortar MR3
- Durable Repair
- Self Healing properties
- Year 2018



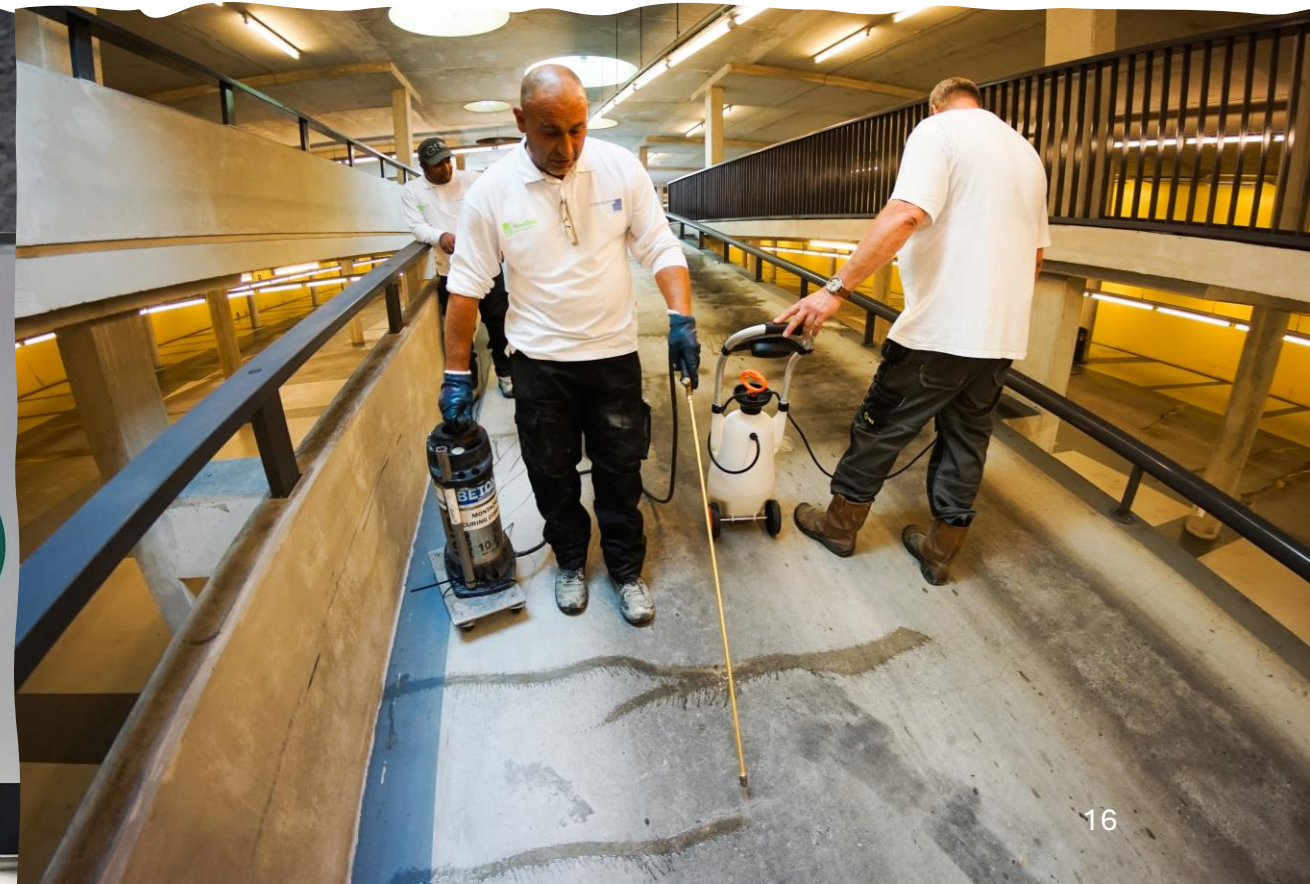
GRONING ER FORUM

- Client: BAM Utiliteitsbouw
- Size: 101 m²
- Basilisk Self-Healing Repair Mortar MR3
- Durable repair
- Self-Healing properties
- Especially suitable for leakage problems
- Year: 2016

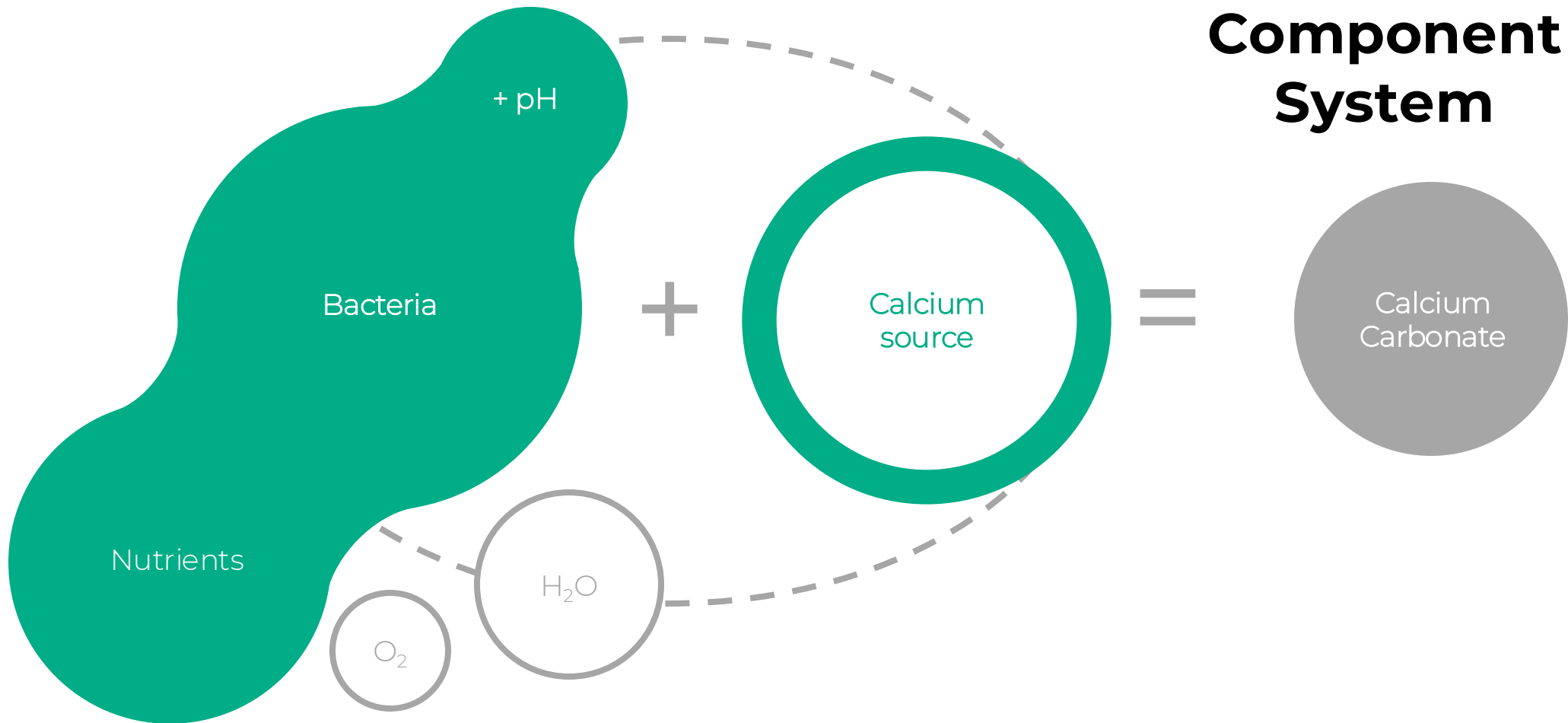


ER7 LIQUID REPAIR SPRAY

- Fast and efficient treatment for hair cracks on horizontal surfaces.
- 2 components
- Treat > 10,000 m2 a day
- Surface can be used after 48 hours
- Nontoxic



How does it work?





Field of application

- Horizontal surfaces
- Crack repair and/or surface densification
- Functional repair of cracks
 - 1 treatment → up to 0.3 mm
 - 2 treatments → up to 0.45 mm
 - 3 + treatments → up to 0.8 mm
- Increase freeze/ thaw resistance
- No meant for aesthetic or structural repair!



Advantages

Organic solvent free

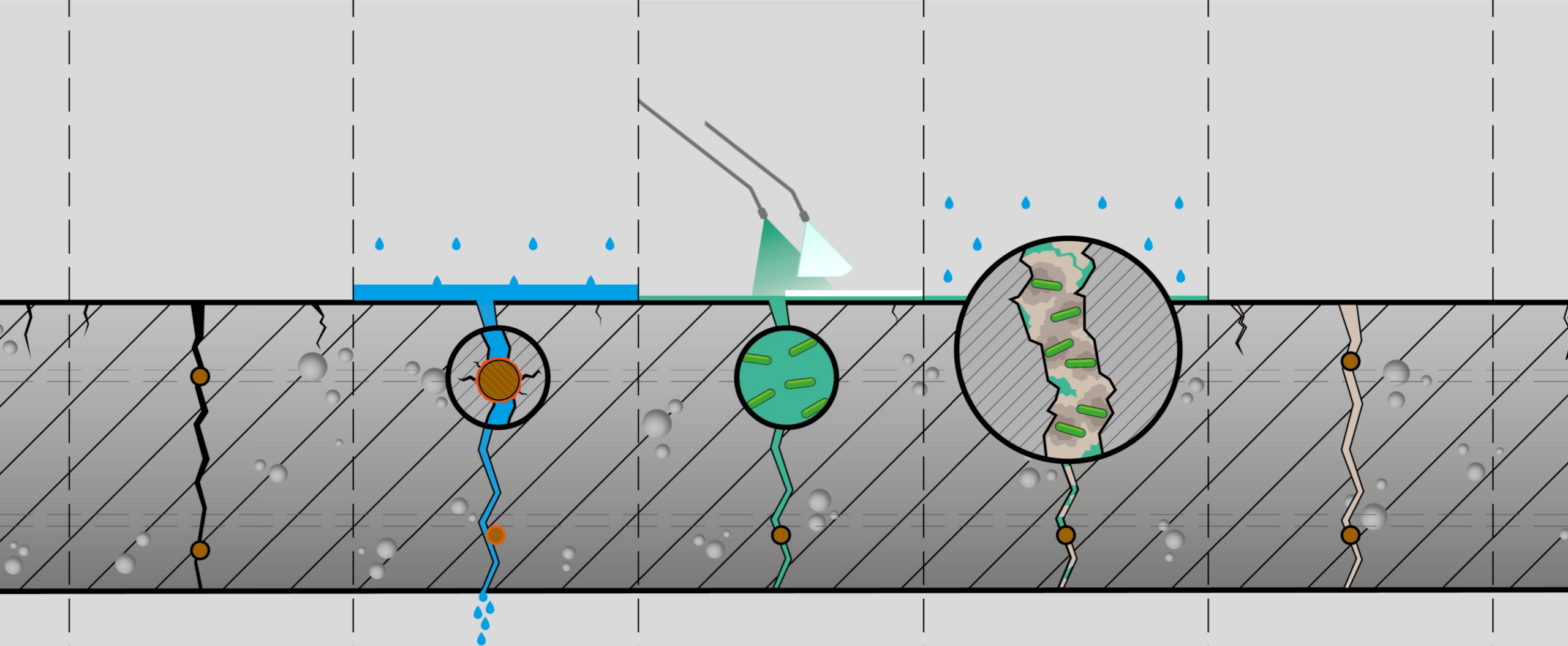
Densifies porous surfaces

Increase of freeze/ thaw resistance

Penetrates deep into cracks and pores

Functional repair of cracks

Rapid and easy application



1. CONCRETE CRACKS

Cracking is an accepted and common phenomenon in concrete structures.

2. LEAKAGE & CORROSION

However, cracked concrete may result in serious leakage and reinforcement corrosion issues.

3. APPLYING BASILISK ER7

Applying two treatments of component A and one treatment of component B.

4. SELF HEALING

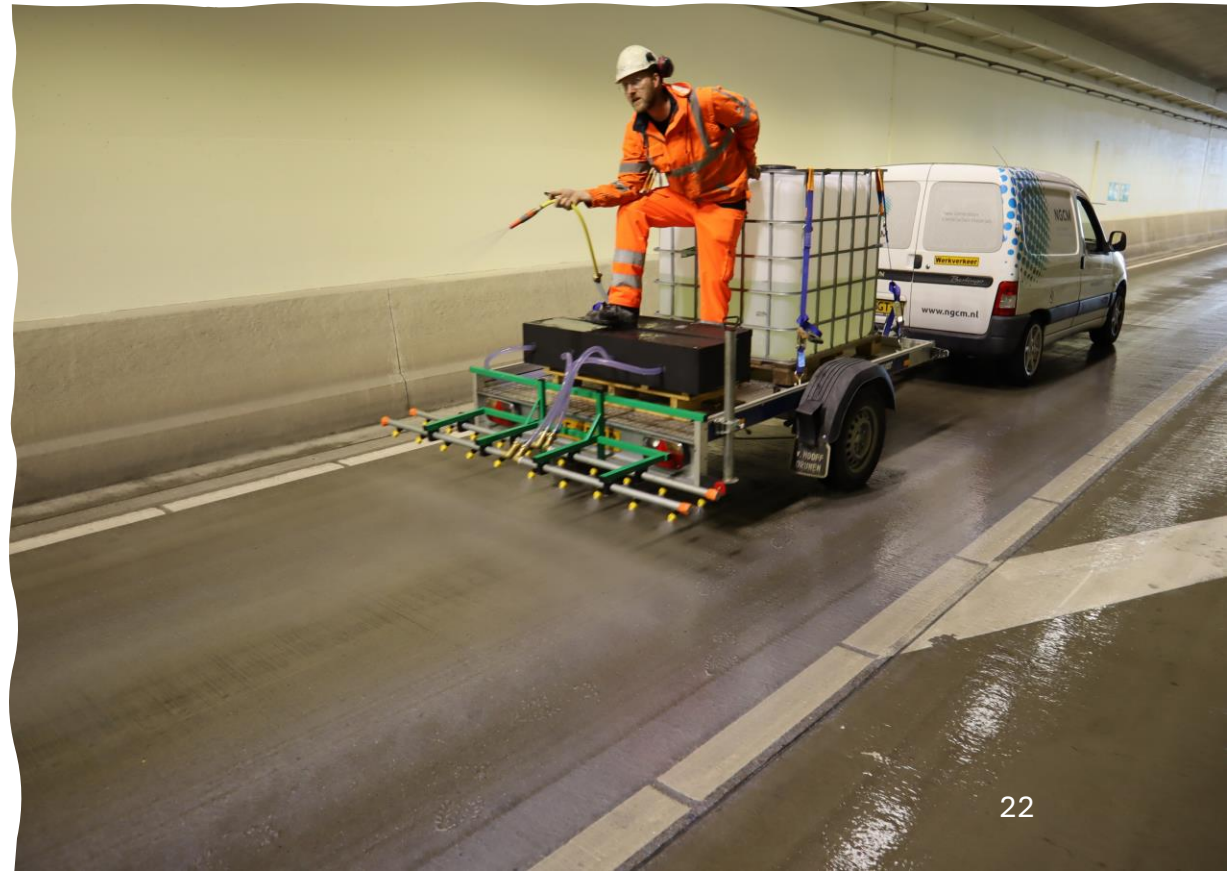
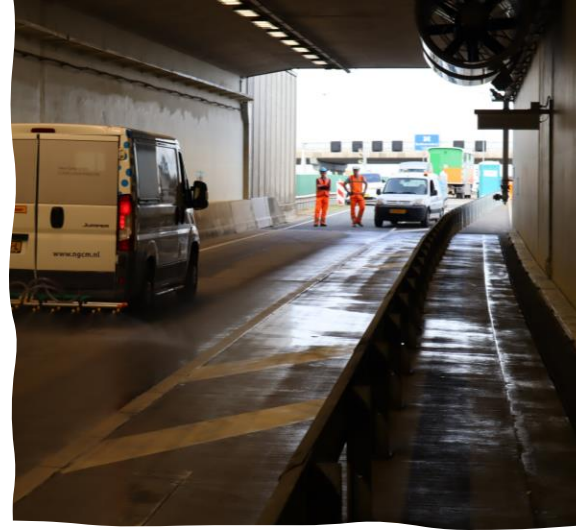
The bacteria will multiply and start to produce limestone.

5. CRACKS ARE SEALED

Through the formation of limestone cracks are repaired. This prevents leakage and protects the reinforcement.

Application

- Automated spray units



Curing after application



Curing after
application





2025 – ER7



2025 - Injection