

BACTAHEAL® – PR MATERIAL DATA SHEET

Self-Healing Biological Concrete Admixture

Product Description

Bactaheal® is a bio-based self-healing concrete admixture containing specially selected spore-forming bacteria and nutrients. When micro-cracks develop and water penetrates the concrete, the bacteria activate and produce calcium carbonate, which seals the cracks naturally and improves durability.

Key Benefits

- Self-heals micro cracks up to approximately 0.3–0.5 mm
- Reduces water permeability and seepage
- Enhances durability and service life of concrete
- Eco-friendly and sustainable solution
- Reduces long-term maintenance and repair cost

Applications

- RCC slabs, beams and columns
- Foundations and basements
- Water tanks and reservoirs
- Sewage and drainage structures
- Marine and coastal structures
- Industrial and commercial floors

Typical Technical Properties

Property	Description
Form	Powder
Color	Off-white / Greyish
Compatibility	OPC, PPC, PSC
Chloride Content	Nil
Toxicity	Non-toxic
Crack Healing Capacity	Up to approx. 0.3–0.5 mm
Shelf Life	12–24 months (sealed, dry condition)

Dosage and Usage

Recommended dosage is 0.5% – 1.0% by weight of cement. For example, 2–4 kg of Bactaheal® per cubic meter of concrete depending on cement content.

Mixing Instructions

- Add Bactaheal® directly with cement during dry mixing
- Ensure uniform dry mixing before adding water
- Do not dissolve separately in water
- Normal concrete mixing procedure to be followed

Curing

Proper water curing is essential. Maintain moist curing for a minimum of 7–14 days to activate bacterial healing mechanism effectively.

Limitations

- Suitable for micro and shrinkage cracks only
- Not intended for large structural cracks
- Proper curing and quality concrete practices are mandatory

Note: The above information is based on typical laboratory and field performance. Actual results may vary depending on concrete mix design and site conditions.