

Basilisk Healing Agent (HA) Application Instructions

Basilisk Healing Agent (HA) is an additive for concrete mixtures to enable self-healing capacity based on calcium carbonate precipitation by micro-organism activity. HA can be added as a precautionary measure in the original mix design or as a tool for crack management.

Before handling HA please make sure you have read and understood the Material Safety Data Sheet (MSDS) of Basilisk Healing Agent.

Dosage

The dosage of HA may vary between 1 – 4% of the amount of Portland cement clinker in the concrete mixture. For use of HA in mixtures with a composite cement type (e.g. blast-furnace slag cement) the percentage of Portland cement clinker should be at least 50%.*

Typically the dosage for precautionary purposes is between 5 – 7,5 kg/m³ of concrete.

Addition of HA to the concrete mixture may affect the workability and strength development slightly depending on the mixture. However when using a dosage of 5 – 7,5 kg/m³ the influence can be considered negligible. For addition to new mixtures (with no experience with HA) or higher dosages it is advised to test the effect on workability (slump) and strength development (3, 7 and 28 days).

Mixing

Small batch mixing

Always add HA to the wet concrete mixture. Once added HA apply mixing until a homogeneous mixture is obtained, typically a mixing time of approximately 3 minutes is sufficient depending on the type of mixture is used.

Large batch mixing (@ ready-mix plant)

When adding HA to the concrete mixture at a ready-mix plant it is recommended to add HA directly to the dry mix in the batch mixer, preferably together with the sand and gravel. No additional mixing time is needed.

If this is not possible due to safety issues or lack of accessibility it is recommended to add HA into the truck mixer at the same time when the concrete is poured into the truck mixer. Apply 3 min. high intensity mixing in the truck at the plant. During transport keep the truck mixer running as usual. When at the construction site apply an additional 3 min high intensity mixing before pouring the concrete.

* For clinker-percentages lower than 50% a lower maximum dosage is advised depending on the effect on strength development and workability. Additional testing with the specific mixture is recommended.