

# Concrete curing compounds: how to assess their effectiveness?

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## Why is concrete curing so important?



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Effect of curing on strength development (example)



#### Why is concrete curing so important?

Curing is a simple step that is often neglected but can make a huge difference with respect to the lifetime of concrete !





## Concrete curing compounds

*How?* By spraying on concrete surface <u>shortly</u> after placing and finishing.



*Why?* Surface film that reduces evaporation of moisture from concrete.

• Waxes, natural and synthetic resins, ...

- Water-based or solvent-based
- Pigmented or not
- Permanent or not

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What?



- 4-year project (until end 2022)
- Partnership: BBRI / CRIC-OCCN
- Main goals:

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- Refining the test method
- Reviewing the effectiveness <u>criterion</u>



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#### Water loss test

Often large variability in test results !







Criterion Effectiveness

(> x % after x hours)

Assessment based on <u>durability</u> parameters instead of compressive strength?



[Audenaert & De Schutter, 2002]





#### Questions / Suggestions / Lessons Learned?

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