

KIWA - Test Documentation

Documented test results for Multi Coating products



Performed by KIWA AS in accordance with
European test standards (EN standards)



2026



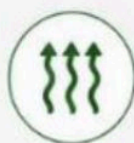
FROST PROTECTION

Reduces the risk of frost
damage and scaling



WATER-REPELLENT

Up to 13x less
water penetration



BREATHABLE

94% breathability
- concrete can breathe



ALKALI-RESISTANT

Excellent resistance to
strong alkaline exposure



GOOD PENETRATION

Penetration depth
measured at 14.7 mm

KIWA - Summary of Test Results

Documentation for Multi Coating AS

The tests were conducted by KIWA AS in accordance with relevant European standards for concrete protection. The results show that both Multi Coating ConGuard and Multi Coating ConGuard+ provide excellent protection against water penetration and frost damage, while the concrete retains high breathability.

1. Frost Resistance

Test standard: EN 13687-1:2002 and EN 1542:1999

The freeze/thaw tests show that impregnated concrete samples experienced significantly less scaling than untreated reference samples.

Results

- ConGuard: Average scaling 2.4 grams
- Untreated reference: 24.0 grams

This corresponds to approximately 10 times less scaling than untreated concrete.

Multi Coating ConGuard+ showed no visible scaling in the tests concerned.

2. Resistance to Water Penetration

Test standard: EN 1062-3:2008

After 24 hours under water, the samples showed very low water absorption.

Results

- ConGuard: 0.061 g
- ConGuard+: 0.119 g
- Untreated reference: 0.81 g

The results show very high resistance to water penetration compared with untreated concrete.

3. Breathability and Drying

Test standard: EN 13579

The tests show that the impregnation reduces water penetration while still allowing the concrete to release moisture.

The result was classified as Class I (30%), which is the highest classification in this test.

4. Alkali Resistance

Test standard: EN 13580:2002

After 21 days in potassium hydroxide solution, the impregnated samples showed only 3.8% water absorption, demonstrating excellent resistance to strong alkaline exposure.

5. Penetration Depth

- Average penetration depth: 14.7 mm

6. Breathability

Measured breathability: 94.1%

This means that the impregnation protects the surface against water penetration without preventing the concrete's natural ability to release moisture.

Conclusion

The KIWA tests document that Multi Coating ConGuard and Multi Coating ConGuard+:

- effectively protect against frost damage
- significantly reduce water penetration
- maintain high breathability
- have good resistance to alkaline exposure
- provide long-lasting protection for concrete surfaces