

# PRIMIS® KT 3000

## The High-Performance Additive for Exterior Paints and Plasters in Cold Environments

**PRIMIS® KT 3000 is WACKER's high-performance additive for architectural coating applications in cold weather conditions. PRIMIS® KT 3000 stabilizes paints and plasters during drying and enhances the durability of the surface. It is highly compatible with a variety of VINNAPAS® dispersions.**

### The Challenge

In many regions, construction periods are seasonally limited. During months with low temperatures and high humidities, the film formation and proper drying of conventional paint and plaster formulations is challenging. With the addition of PRIMIS® KT 3000, paints and plasters can be applied at temperatures even around 6 °C and below, which extends the construction season during which coatings can be applied outside.

### Product Data of PRIMIS® KT 3000

Solid content [wt%]	15 – 19
Viscosity [mPa.s]	50 – 110
pH	11 – 13
Pigment / filler compatibility	Very good
Electrolyte stability	Very good

### The Solution: Controlled Flocculation

At conditions with temperatures around 6 °C and below, the application of standard synthetic-resin-bound renders, paints and EIFS finishing top coats is challenging, unless either drying is accelerated or surface durability is enhanced. Controlled flocculation is one way to overcome these challenges. With the correct balance of flocculation additive and flocculation inhibitor, the binder is flocculated on the wall during the drying process and forms a polymer network. This network protects the system from exterior influences, such as rain, allowing the coating to dry completely without being damaged.

### PRIMIS® KT 3000: A Highly Effective Additive

PRIMIS® KT 3000 is a highly effective additive for controlled flocculation. It contains zinc acetate and polyethyleneimine, which form complexes with water molecules and other components in the paint or plaster. These gel-like structures provide mechanical stability to the coating during drying at lower temperatures. Adding just small amounts of PRIMIS® KT 3000 to the formulation is enough to ensure that the paint or plaster is resistant to external influences, such as heavy rain, within hours.



In many parts of the world, the construction industry is seasonally limited for applying paints and plasters. PRIMIS® KT 3000 can help extend the time period available for painting and plastering.



PRIMIS® KT 3000 is tested by applying a sample to a glass plate and storing it in a climatic chamber for six hours at 5 °C and 85% humidity. The sample is then exposed to simulated heavy rain for 20 minutes.

### The Benefits of PRIMIS® KT 3000 at a Glance

- Allows application of paints and plasters around 6 °C and below
- Extends the period during which paints and plasters can be applied outside
- Protects against damage from early rain
- Resulting formulations are solvent free
- Highly compatible with a variety of popular VINNAPAS® grades such as VINNAPAS® EP 523, CEZ 3031, CEF 52 and EZ 3019
- Can also be used in combination with other commercial grades, even those based on competing technologies

### Resistance of Exterior Plasters to Early Rain



Sample based on VINNAPAS® EP 523 with PRIMIS® KT 3000



Sample based on VINNAPAS® EP 523 without PRIMIS® KT 3000



Sample based on VINNAPAS® CEZ 3031 with PRIMIS® KT 3000



Sample based on VINNAPAS® CEZ 3031 without PRIMIS® KT 3000



Sample based on VINNAPAS® EZ 3019 with PRIMIS® KT 3000



Sample based on VINNAPAS® EZ 3019 without PRIMIS® KT 3000



Sample based on VINNAPAS® CEF 52 with PRIMIS® KT 3000



Sample based on VINNAPAS® CEF 52 without PRIMIS® KT 3000

Direct comparison in the laboratory: after six hours' drying time, the test surfaces are irrigated. While the standard plaster (right) does not withstand the water, the plaster modified with PRIMIS® KT 3000 (left) has formed a stable polymer network after only a few hours drying under critical conditions.

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