KA Tanking Slurry

Professional environmental conditions guide — installer-ready reference for temperature, humidity, substrate moisture, ventilation, weather protection and curing controls before, during and after application.

Technical Helpline: 01872 879011

Use this guide as an on-site conditions checklist: confirm substrate and ambient temperature are above 5°C, maintain SSD substrate condition, protect against wind, sun, rain and frost, provide ventilation without forced drying, and maintain moist curing for at least 3 days.

1. Temperature Requirements

MINIMUM 5°C

Minimum Temperature

From your 2020 TDS:

"Do not apply when substrate or ambient temperatures are below 5°C."

- **Absolute minimum: 5°C**
- Below this, hydration slows and crystalline formation is incomplete.

Ideal Temperature Range

- **10–20°C**
- Ensures correct working time, penetration, and curing.

Maximum Temperature

- **Above 25°C:** slurry may stiffen too quickly
- **Above 30°C:** risk of flash-drying and surface cracking

If too hot

- Mist substrate before application
- Work in smaller batches
- Shade walls from direct sun
- Avoid peak midday heat

2. Humidity and Moisture Conditions

SSD REQUIRED

Substrate Moisture

From your 2026 TDS:

“Substrates must be fully saturated with clean water to support penetration and crystalline growth.”

Correct condition: **SSD (Saturated Surface Dry)**

- Surface is wet
- No standing water
- No puddles
- No dry patches

Ambient Humidity

- **High humidity:** good for curing
- **Low humidity:** increases risk of rapid drying
- **Windy conditions:** accelerate evaporation → mist surface

3. Ventilation Requirements

NO FORCED DRYING

From your 2026 TDS:

“Provide ventilation to reduce condensation.”

Correct Ventilation

- Natural airflow
- Passive ventilation
- Fans for air movement (not dehumidifiers)

Incorrect Ventilation

From your 2026 TDS:

“Avoid heaters or dehumidifiers during early curing.”

Do NOT use:

- Heaters
- Dehumidifiers
- Forced hot air
- Industrial dryers

These cause:

- Surface cracking
- Weak crystalline formation
- Delamination
- Powdery finish

4. Weather Conditions: Internal and External

PROTECT FRESH SLURRY

Rain

- Do NOT apply slurry during rainfall
- Protect fresh slurry from rain for **24 hours**
- Rain on uncured slurry causes wash-off and streaking

Wind

From your 2026 TDS:

“Prevent rapid drying in hot or windy conditions.”

- Wind accelerates evaporation
- Use polythene sheeting or temporary barriers
- Mist surface lightly if drying too fast

Sunlight

- Direct sun causes flash-drying
- Shade external walls
- Work early morning or late afternoon

Frost

- Do NOT apply below 5°C
- Protect fresh slurry from frost for **72 hours**
- Frost destroys hydration and crystalline growth

5. Substrate Temperature vs Ambient Temperature

CHECK BOTH

Installers must check BOTH.

Cold substrate, warm air

- Condensation risk
- Slurry may blister
- Pre-warm substrate with gentle ventilation (no heaters)

Hot substrate, cool air

- Slurry may stiffen instantly
- Mist substrate before application
- Work in smaller sections

6. Environmental Conditions for Each Stage

STAGE CONTROL

A. Preparation Stage

- Substrate must be saturated
- No dust, no dry patches
- No direct sun or wind during saturation

B. First Coat

- Apply at 10–20°C
- Protect from wind and sun
- Maintain SSD condition
- No heaters or dehumidifiers

C. Recoat Window

- 4–24 hours
- Mist first coat if drying too fast
- Avoid cold, damp conditions that extend drying

D. Curing Stage

From your 2026 TDS:

“Maintain moist conditions for a minimum of 3 days.”

- Keep surface damp
- Mist lightly if needed
- No forced drying
- No frost
- No direct sun
- No wind exposure

E. Full Cure

From your 2020 TDS:

“Allow 7 days for full cure under normal conditions.”

- After 7 days, slurry is fully hardened

- Suitable for plaster/render
- Suitable for flood testing (non-potable)

7. Environmental Risks and Effects

Environmental Issue	Effect on Slurry	Result
Too cold (<5°C)	Hydration stops	Weak, powdery finish
Too hot (>25°C)	Rapid stiffening	Cracking, poor penetration
Wind	Flash-drying	Surface tearing
Direct sun	Overheating	Loss of adhesion
Low humidity	Rapid evaporation	Poor crystalline formation
High humidity	Slow drying	Extended recoat window
Frost	Hydration failure	Complete system failure
Heaters/dehumidifiers	Forced drying	Cracking, delamination

8. Environmental Controls Installers Must Use

CONTROL MEASURES

MANDATORY CONTROLS

- Misting spray
- Polythene sheeting
- Temporary shading
- Ventilation (not dehumidification)
- Temperature monitoring
- Moisture monitoring (SSD condition)

RECOMMENDED CONTROLS

- Hygrometer
- Infrared thermometer
- Wind shields
- Work scheduling (avoid midday heat)

9. Environmental Conditions for Radon-Sensitive Projects

CONTINUOUS BARRIER

From your 2026 TDS:

“Maintain curing conditions carefully so the coating develops a dense, continuous barrier.”

Additional requirements:

- No rapid drying
- No temperature swings
- No missed areas
- No thin spots
- No condensation droplets
- Inspect each coat for continuity
- Ensure full cure before any subsequent works

Sources: KA Tanking Slurry Technical Data Sheet 2026 Edition, KA Tanking Slurry Technical Data Sheet 2020 Edition, KA Tanking Standard Specification including KA-Bond SBR, and KA Tanking Slurry COSHH SDS.