



Restore and waterproof damaged masonry work safely

When buildings, and particularly basements, become damp or in need of restoration, this can quickly lead to more severe damage to the building structure. However, there are options for repairing such buildings. We'll show you how you can restore successfully using our THERMOPAL restoration plaster systems.

Problems Solved.



Retroactive indoor restoration – often the only solution

Retroactive waterproofing building components in direct ground from inside the room is a particular challenge in the building restoration industry. In many cases, the actual cause of damage cannot be rectified from the outside completely due to unfavourable conditions such as adjacent buildings. Subsequent restoration and waterproofing from the inside is often the only solution.

Effects of damp and salt damage

- Damage to the building structure (plaster, masonry work)
- Loss of living space (rooms are not completely usable)
- Loss of energy (high heating costs)
- Health hazards (mould formation, allergies)

The solution with the THERMOPAL restoration plaster system

- Basement wall restoration possible in one day
- Radon protection
- Function confirmed independently

Restore masonry work damaged by damp and salt with the THERMOPAL® restoration plaster



THERMOPAL®-SR24

Restore damp and salt loaded surfaces economically and safely.

Areas of application

- Converting living and basement spaces
- Restoring usable areas
- Salt-loaded surfaces
- Damaging plaster surfaces due to hygroscopic damp
- Interior and exterior areas

Properties

- Manual and mechanical application
- High salt storage capacity
- Vapour permeable
- High area coverage



THERMOPAL®-ULTRA

For predictable working progress thanks to reactive material setting.

Areas of application

- Restoring usable spaces
- Private and commercial areas
- High salt load in the masonry work
- Damp damage due to condensation
- For building sites under time pressure
- Base areas
- Interior and exterior areas

Properties

- High volume of entrained air
- Sulphate resistant
- Up to 30 mm in one application step
- Rapid, reactive bonding behaviour
- Vapour permeable
- Extremely low shrinkage



THERMOPAL®-ULTRA-white

For rapid restoration work with the best surface quality.

Areas of application

- Restoring living spaces
- Private areas
- High quality usable areas
- Directly usable surfaces
- High salt load in the masonry work
- Damp damage due to condensation
- For building sites under time pressure
- Base areas
- Interior and exterior areas

Properties

- White restoration plaster surface
- Climate-regulating
- Low material rate
- High volume of entrained air
- Sulphate resistant
- Rapid, reactive bonding behaviour
- Vapour permeable
- Keeps the surface dry
- Extremely low shrinkage



Substrate preparation

The basis for sustainable, effective restoration

Even the best building products must harmonise with the substrate on which they are used. Ensuring optimum bonding and long-term function requires thorough and meticulous preparation on the building surface to be treated.

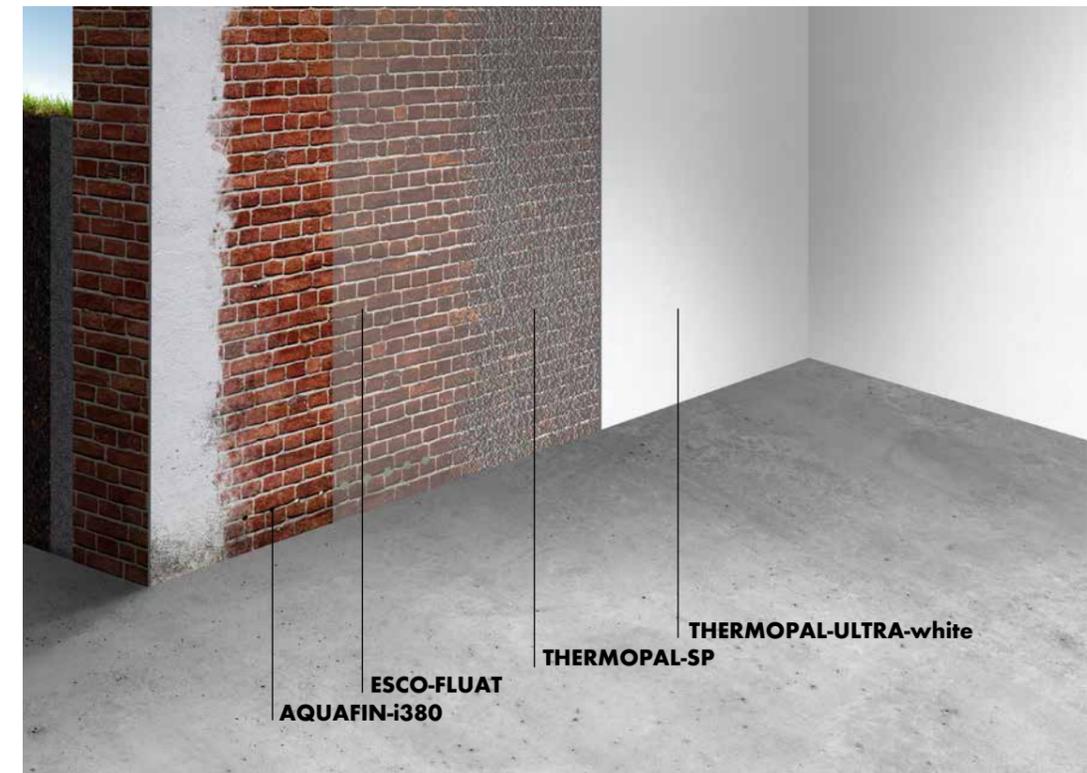
Degree of salinisation	Measures	Layer thickness in mm
Low	1. Splatterdash coat	≤ 5
	2. WTA restoration plaster	≥ 20
Medium or high	1. Splatterdash coat	≤ 5
	2. WTA restoration plaster	10 - 20
	3. WTA restoration plaster	10 - 20
High	1. Splatterdash coat	≤ 5
	2. WTA entrained backing coat plaster	≥ 15
	3. WTA restoration plaster	≥ 15

Source: WTA datasheet 2-9 (restoration plaster systems)

Restoration plasters as a salt store and to regulate the climate

In comparison to conventional plasters such as lime or cement plasters, the THERMOPAL restoration plasters have the benefit of not getting damaged by harmful salts in the substrate and not pressed by the wall. They store the salts in their pore structure and efflorescence is prevented. Water vapour can continue to escape unhindered over the entire plaster structure without causing damage. Masonry work drying is therefore supported.

Restoration plaster system for masonry work damaged by damp and salt without additional waterproofing measures



1. Subsurface preparation

1. Remove the plaster from at least 80 cm beyond the damaged area.
2. Scrape crumbly and salt loaded joints out to at least 20 mm deep.
3. Use ESCO-FLUAT to convert sulphate and chloride salts from salts that dissolve easily to salts that are difficult to dissolve.
4. Use THERMOPALGP11 to compensate for joints and voids.

2. Horizontal barrier

1. Use AQUAFIN-i380 or AQUAFIN-F to create a retroactive horizontal barrier.
2. Use ASOCRET-M30 to seal the drilled holes again.

3. Restoration plaster system

1. For improved adhesion, apply the THERMOPAL-SP splatterdash coat as a semi-covering to the load-bearing substrate.
2. If required (e.g. high salt loading and large surface irregularities), apply the THERMOPAL-GP11 base plaster as an intermediate layer. Roughen up the surface horizontally for the subsequent restoration plaster.
3. Use the THERMOPAL-ULTRA-white restoration plaster to plaster the wall surfaces.
4. THERMOPAL-FS33 can be applied as a finish if fine plaster is required.

Added safety – additional measures for incorrect and faulty exterior waterproofing

Restoration plaster may not be subjected to hydrostatic pressure (pressure water and backwater). They are used in interior areas or in exterior areas if necessary but then only above ground level. If the masonry work is damp due to missing waterproofing measures, it first requires suitable waterproofing measures.

Interior waterproofing with a system

Interior waterproofing is used if exterior waterproofing is inaccessible, e.g. due to extensions, cannot be performed due to building instability or is not economically viable. Our interior systems provide the optimum solution for waterproofing building components in direct ground safely and permanently.

Restore faster with TopTec technology



Our restoration plasters with the special TopTec technology promise rapid working progress thanks to controlled and reactive bonding behaviour.

Benefits include a fast application in the event of unfavourable ambient conditions such as low temperatures and high humidity. Rapid setting is even guaranteed in the event of changing substrate conditions with different absorption behaviour.

The TopTec technology enables restoration measures to be reduced significantly and to be completed on one day thanks to predetermined system components.

The table below specifies the work measures for the individual work steps per working day.

System	Application areas	Advantages	Work day 1	Work day 2	Work day 3	Work day 4
System 1: The day system	<ul style="list-style-type: none"> Private areas High quality usable areas Underground apartments Heated basement rooms Shops For non pressure and pressure water 	<ul style="list-style-type: none"> Rapid completion thanks to few steps Levelling and waterproofing in one application step White restoration plaster surface 	Horizontal barrier AQUAFIN-i380 Barrier plaster layer ASOCRET-M30 Restoration plaster THERMOPAL-ULTRA-white			
System 2: The flexible system with radon protection	<ul style="list-style-type: none"> Heated basement rooms Cracked masonry work High quality usable areas Private areas For normal to high damp load 	<ul style="list-style-type: none"> Rapid, reactive hardening Radon-tight Crack bridging 	Horizontal barrier AQUAFIN-i380 Pre-waterproofing / barrier plaster layer ASOCRET-M30	Flexible interior waterproofing + splatterdash coat AQUAFIN-RB400 + THERMOPAL-SP	Restoration plaster THERMOPAL-ULTRA	
System 3: The classic system	<ul style="list-style-type: none"> System for usable spaces Conversion Storage rooms Garages Workshops For non pressure and pressure water 	<ul style="list-style-type: none"> Manual and mechanical application High area coverage Economical 	Horizontal barrier AQUAFIN-F Seal joints and voids ASOCRET-M30 First waterproofing layer AQUAFIN-1K Second waterproofing layer AQUAFIN-1K Third waterproofing layer* + splatterdash coat AQUAFIN-1K + THERMOPAL-SP	Restoration plaster THERMOPAL-SR24	Fine plaster (optional) THERMOPAL-FS33	

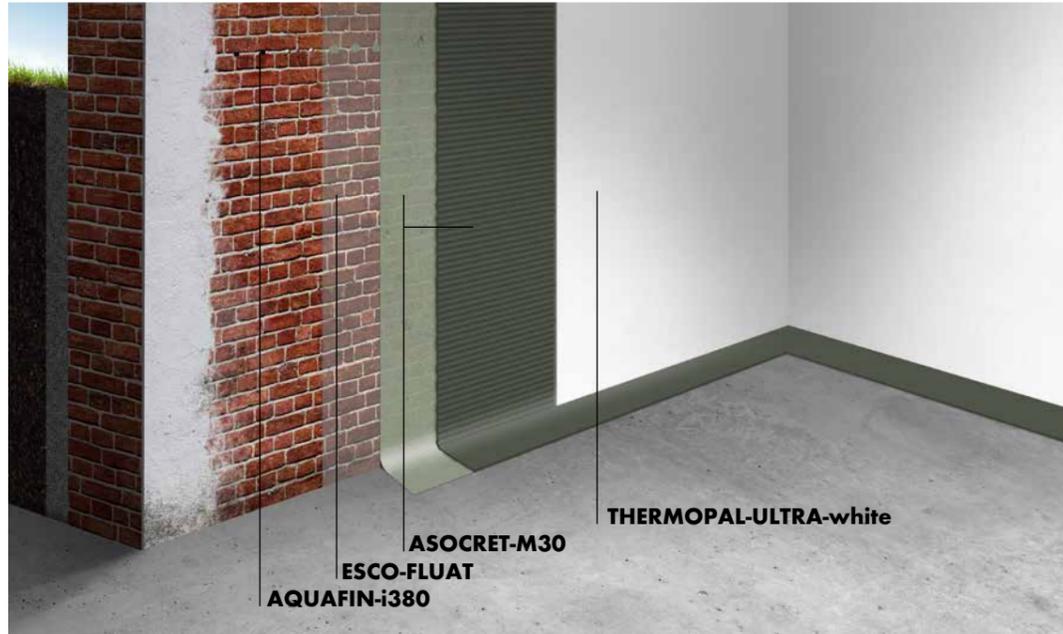
*Optional in the event of pressure water.

The time required depends on the ambient conditions and can vary significantly; consider drying times if necessary. Example for a roughly 10 m² surface area without substrate preparation measures.



System 1: The day system

For fast restoration work in one day



1. Subsurface preparation

1. Remove the plaster from at least 80 cm beyond the damaged area.
2. Scrape crumbly and salt loaded joints out to at least 20 mm deep.
3. Use ESCO-FLUAT to convert sulphate and chloride salts from salts that dissolve easily to salts that are difficult to dissolve.
4. Use ASOCRET-M30 to compensate for joints and voids.
5. Use ASOCRET-M30 to insulate the existing horizontal barrier and locking groove in the wall-floor transition.
6. Use ASOCRET-M30 to implement a sealing groove in the floor-wall transition.

2. Horizontal barrier

1. Use AQUAFIN-i380 to create a retroactive horizontal barrier.
2. Use ASOCRET-M30 to seal the drilled holes again.

3. Interior waterproofing

1. Apply ASOCRET-M30 as a barrier plaster layer and for surface levelling.
2. Comb the layer that is still fresh horizontally using an 6 mm notched trowel.

4. Restoration plaster system

1. Use the THERMOPAL-ULTRA-white restoration plaster to plaster the wall surfaces.

Products



THERMOPAL®-ULTRA-white WTA rapid-setting restoration plaster

- White restoration plaster surface, usable directly
- Climate-regulating
- High yield
- Reactive full curing in the event of critical site conditions



AQUAFIN®-i380 Injection cream for the retroactive horizontal barrier to prevent capillary rising damp

- Ready to use
- High penetration depth
- Easy and safe to use
- Application without any pressure



ASOCRET-M30 Water-repellent multi-mortar up to 30 mm for levelling and interior wall waterproofing

- Rapid setting
- Sulphate resistant
- Very smooth application



ESCO-FLUAT Solution for treating structurally damaging salts

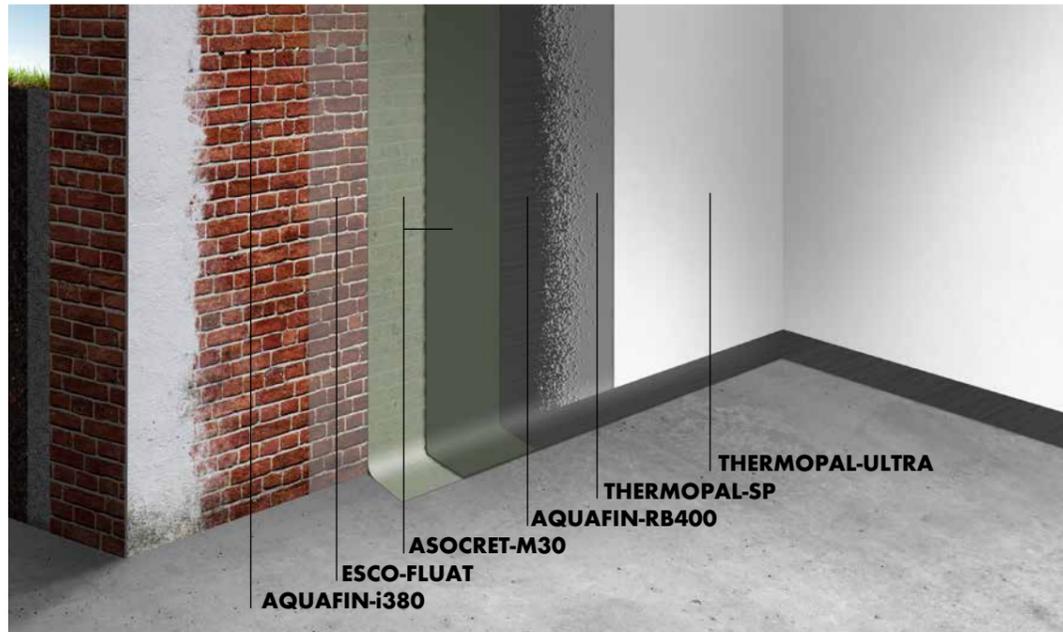
- Concentrate
- To covert structurally damaging salts
- To prevent too early a salt effect in fresh restoration plaster
- Solvent-free





System 2: The flexible system with radon protection

Restoration system with high requirements for crack bridging and with reliable protection from radon loading



1. Subsurface preparation

1. Remove the plaster from at least 80 cm beyond the damaged area.
2. Scrape crumbly and salt loaded joints out to at least 20 mm deep.
3. Use ESCO-FLUAT to convert sulphate and chloride salts from salts that dissolve easily to salts that are difficult to dissolve.
4. Use ASOCRET-M30 to compensate for joints and voids.
5. Use ASOCRET-M30 to insulate the existing horizontal barrier and locking groove in the wall-floor transition.
6. Use ASOCRET-M30 to implement a sealing groove in the floor-wall transition.

2. Horizontal barrier

1. Use AQUAFIN-i380 to create a retroactive horizontal barrier.
2. Use ASOCRET-M30 to seal the drilled holes again.

3. Flexible interior waterproofing

1. Apply ASOCRET-M30 as a barrier plaster layer and for surface levelling.
2. Apply AQUAFIN-RB400 as flexible interior waterproofing.

4. Restoration plaster system

1. For improved adhesion, apply the THERMOPAL-SP splatterdash coat over the complete area.
2. Use the THERMOPAL-ULTRA restoration plaster to plaster the wall surfaces.
3. THERMOPAL-FS33 can be applied as a finish if fine plaster is required.

Products



THERMOPAL®-ULTRA WTA rapid-setting restoration plaster

- Rapid, reactive hardening
- High volume of entrained air
- Up to 30 mm in one application step
- Sulphate resistant



THERMOPAL®-FS33 Fine mortar for THERMOPAL restoration plasters

- Cementitious fine plaster
- Vapour permeable
- Low-stress
- For interior and exterior use



AQUAFIN®-RB400 Rapid cementitious waterproofing for substrates at risk of cracking with radon protection

- Rapid, reactive drying
- Crack bridging
- Vapour permeable
- Radon-tight



AQUAFIN®-i380 Injection cream for the retroactive horizontal barrier to prevent capillary rising damp

- Ready to use
- High penetration depth
- Easy and safe to use
- Application without any pressure



ASOCRET-M30 Water-repellent multi-mortar up to 30 mm for levelling and interior wall waterproofing

- Rapid setting
- Sulphate resistant
- Very smooth application



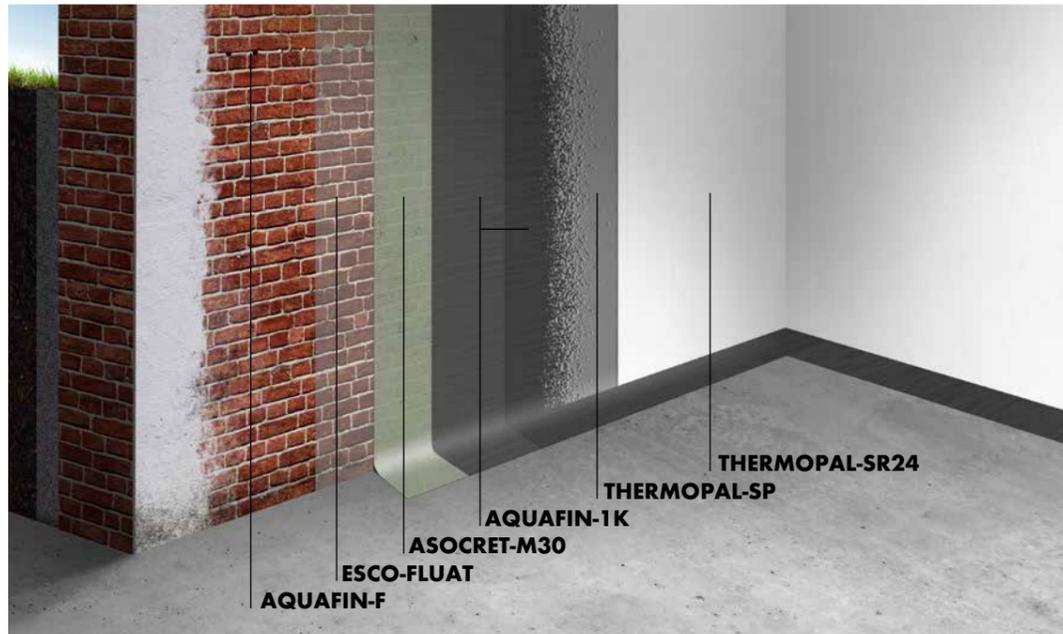
Further system products:

- THERMOPAL-SP WTA preparatory renovating sprayed mortar
- THERMOPAL-GP11 WTA base plaster
- ESCO-FLUAT Solution for treating structurally damaging salts



System 3: The classic system

Retroactive basement restoration with cementitious waterproofing slurry for substrates that are not at risk of cracking



1. Subsurface preparation

1. Remove the plaster from at least 80 cm beyond the damaged area.
2. Scrape crumbly and salt loaded joints out to at least 20 mm deep.
3. Use ESCO-FLUAT to convert sulphate and chloride salts from salts that dissolve easily to salts that are difficult to dissolve.
4. Use ASOCRET-M30 to compensate for joints and voids.
5. Use ASOCRET-M30 to insulate the existing horizontal barrier and locking groove in the wall-floor transition.
6. Use ASOCRET-M30 to implement a sealing groove in the floor-wall transition.

2. Horizontal barrier

1. Use AQUAFIN-F to create a retroactive horizontal barrier.
2. Use ASOCRET-M30 to seal the drilled holes again.

3. Interior waterproofing

1. Apply AQUAFIN-1K as retroactive interior waterproofing with cementitious waterproofing slurry. Three layers in the event of pressure water.

4. Restoration plaster system

1. For improved adhesion, apply the THERMOPAL-SP splatterdash coat over the complete area.
2. Use the THERMOPAL-SR24 restoration plaster to plaster the wall surfaces.
3. THERMOPAL-FS33 can be applied as a finish if fine plaster is required.

Products



THERMOPAL®-SR24

WTA restoration plaster with high air pore content

- Manual and mechanical application
- High salt storage capacity
- Vapour permeable, supports drying
- Wide range, high area coverage



THERMOPAL®-FS33

Fine mortar for THERMOPAL restoration plasters

- Cementitious fine plaster
- Vapour permeable
- Low-stress
- For interior and exterior use



AQUAFIN®-1K

Mineral waterproofing slurries for retroactive waterproofing of substrates that are not at risk of cracking

- Sulphate resistant
- Water tight
- Easy, economic application
- Adheres to matt damp substrates without primers



AQUAFIN®-F

To create retroactive horizontal barriers if damp increases in the walls

- Ready to use
- Up to 95 % moisture penetration in the pressure process
- Vapour permeable
- Solvent-free



ASOCRET-M30

Water-repellent multi-mortar up to 30 mm for levelling and interior wall waterproofing

- Rapid setting
- Sulphate resistant
- Very smooth application



Further system products:

- THERMOPAL-SP WTA preparatory renovating sprayed mortar
- THERMOPAL-GP11 WTA base plaster
- ESCO-FLUAT Solution for treating structurally damaging salts

Application tips for basement restoration

Component condition analysis

Each waterproofing measure requires a preliminary inspection and a corresponding planning basis. The following points regarding the condition of the building structure must be recorded and documented as part of the preliminary inspection.

- Survey/damage, salt analysis:
What damage is there?
- Effects, distinctive features, e.g. due to capillary rising damp, effect of water from behind, condensation damp, catastrophic damage, mechanical loads due to subsidence, etc.



Subsurface preparation

Remove the existing plaster completely from the wall surfaces to be restored. In the event of partial restoration, e.g. in the plinth area transition, remove the plaster up to 80 cm above the upper limit of the damage and clean.

- Scrape masonry joints out by approx. 20 mm.
- Establish a load-bearing substrate.



Horizontal barrier

In order to prevent capillary water transport in the masonry work, a horizontal barrier is required.

- Injection is performed without any pressure using the AQUAFIN-i380 injection cream.
- After applying the injection cream, use ASOCRET-M30 to seal the surface of drilled holes.



Floor-wall transition

A sealing groove is formed using the ASOCRET-M30 non-capillary conductive sealing mortar in the transition between the wall and floor.

- Cut the existing horizontal barrier back.
- Chisel out a groove in the floor-wall transition.



Pre-sprayed mortar application

For reliable bonding with subsequent restoration plasters, the pre-sprayed mortar is applied to the prepared substrate.

- Apply directly to the masonry work in a mesh pattern with approx. $\leq 50\%$ degree of coverage.
- Apply in conjunction with cementitious waterproofing slurries covering the whole area with 100% degree of coverage.



Preparing ASOCRET-M30 for subsequent restoration plasters

The ASOCRET-M30 water-repellent multi-mortar can be used for surface levelling and as a waterproofing layer. The surface is combed horizontally for subsequent restoration plasters.

- Apply a barrier plaster layer with a layer thickness of 20 mm.
- Comb the fresh layer horizontally using an 6 mm notched trowel.



Curing restoration plasters

After sufficient standing time, the surface can be matt damp felt boarded or rubbed down.

- Premature rubbing down with too much water causes a binder concentration on the surface and can cause stress cracks.
- Alternatively, the surface can also be treated with a grid float. Grid floating is performed depending on the ambient conditions. Grid floating removes the laitance layer that occurred from the surface and improves the system's drying process.



The SCHOMBURG Group develops, produces and distributes building product systems for the areas of:

- Waterproofing and repair of buildings
- Tiles/natural stone/screed application
- Ground protection/floor coating systems
- Concrete technology

For over 80 years SCHOMBURG's development competence has been a recognised feature in both the domestic and the worldwide marketplace. Building product systems that are produced in-house are highly prized around the world.

Experts value the quality and the efficiency of building product systems, the services and therefore the core competence of the group of companies.

To meet the demanding requirements of an ever-changing market, we continuously invest in the research and development of new and already existing products. This guarantees an ever increasing product quality to the satisfaction of our customers.

SCHOMBURG GmbH & Co. KG
Aquafinstraße 2-8
D-32760 Detmold (Germany)
Telephone +49-5231-953-00
Fax +49-5231-953-333
www.schomburg.com

