

Restoration of Historic Structures

Preserving Structures, Protecting Value

WEBAC®



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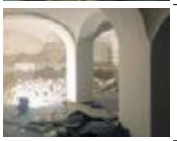

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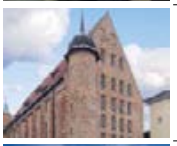

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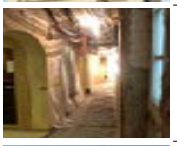

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WEBAC®

Introduction

Preserving Historic Structures for the Long Term

The restoration of historic buildings and structures requires special care in planning, material selection, and execution. Each structure presents unique challenges, shaped by its construction method, the materials used, previous renovations, and various types of damage. Moisture, water ingress, cracks, cavities, voids, or damaged masonry can damage the existing building fabric. At the same time, it is essential to preserve the historic character of the structures and to carry out interventions as gently as possible.

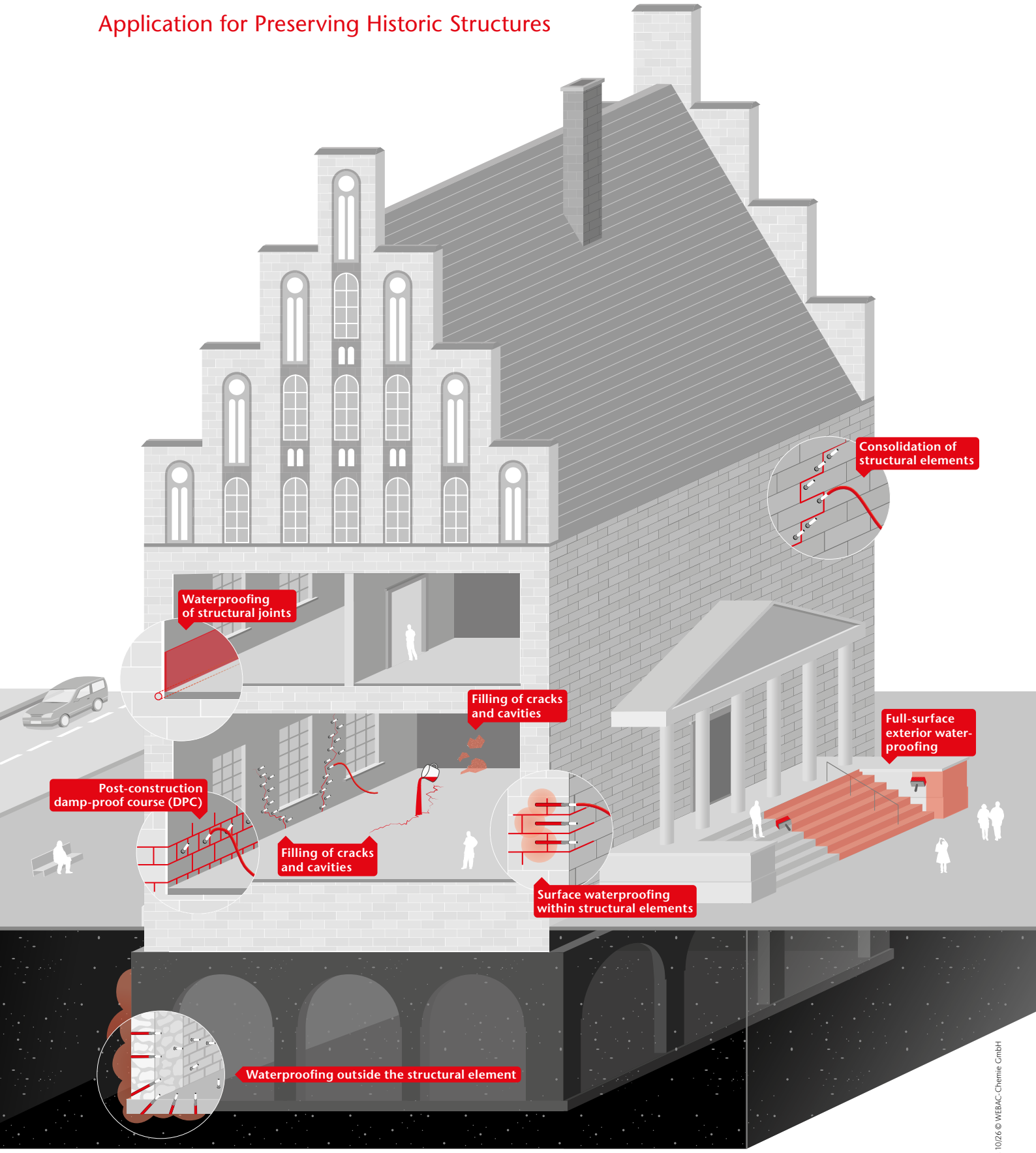
WEBAC supports planners and specialized contractors with field-proven systems for the restoration and waterproofing of historic structures. The range of services extends from surface sealing and post-construction damp-proof courses (DPC) to injection methods for waterproofing, cavity filling, consolidation in masonry, and structural stabilization. A prerequisite for lasting restoration is always careful adaptation to the structure, building materials, and, where applicable, historic preservation requirements.

The projects presented in this brochure demonstrate the diversity of tasks involved in the preservation of historic structures. Whether a town hall, church, fortress, castle, or industrial and cultural building—each structure requires a site-specific solution. The goal is always to permanently protect the existing building fabric and preserve the structure's value for future generations.



St. Nicholas' Church in Potsdam

Application for Preserving Historic Structures



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Areas of Application

The structure, condition, and nature of the damage determine the requirements for the restoration of historic structures. Depending on the situation, different tasks take priority—from moisture-proofing to filling cracks, cavities and voids to consolidation of damaged structural elements. The following application areas provide an overview of typical tasks involved in the restoration of historic structures.



Surface Waterproofing within Structural Elements

In historic structures, existing waterproofing layers may lose their effectiveness. As a result, moisture can penetrate the structural elements and compromise the existing building fabric. If waterproofing from the outside is not possible due to the construction method or local conditions, a surface-level waterproofing layer can be created within the structural element itself.

Through targeted injections, the waterproofing material is introduced into the structural element, creating a post-construction waterproofing layer. This reduces moisture exposure to the structural element and interrupts capillary moisture transport.

Post-Construction Damp-Proof Course (DPC)

Capillary rising moisture can lead to progressive moisture penetration, particularly in older masonry. Water-soluble salts can also enter the masonry along with the moisture and, under certain conditions, cause efflorescence and further damage to the plaster and masonry.

A post-construction damp-proof course is created as a horizontal waterproofing layer within the masonry. Its purpose is to interrupt capillary moisture transport and thereby reduce moisture exposure on the masonry.



Areas of Application

Filling of Cracks and Cavities

Cracks and cavities can develop as a result of settlement, movement, structural modifications, or aging processes. Depending on their location and extent, they can compromise the internal integrity of the structural element or facilitate the penetration of water and moisture.

Using appropriate injection methods, cracks can be filled and cavities, voids and leaks within the structure can be sealed. Depending on the specific task, the focus may be on waterproofing, filling, or restoring the internal integrity of the structure.





Consolidation of Structural Elements

Loose masonry and damaged joints can compromise the structural stability and durability of the structure. In historic masonry structures in particular, there may also be voids and other damaged areas.

Targeted injections can be used to achieve consolidation and stabilization of such areas. The injection material penetrates pores, cracks, cavities and voids, thereby helping to achieve consolidation of the masonry and joints. This improves the structural stability.

Full-Surface Exterior Waterproofing

Components in contact with the ground are exposed to varying levels of moisture and water stress. If suitable waterproofing is lacking or if existing waterproofing layers are damaged, moisture can penetrate the structure through the exterior surfaces and compromise the fabric.

If the exterior of the structural element is accessible, a full-surface external waterproofing layer can be installed there. It is applied directly to the prepared surface of the structural element and forms a continuous protective and waterproofing layer. This protects the structural element from moisture intrusion.



Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Areas of Application



Waterproofing Outside the Structural Element

For structural elements in contact with the ground, standing seepage water or pressing water can penetrate the building fabric, leading to moisture penetration and damage. If excavating the component or applying a waterproofing layer within the structure is not possible, curtain injection offers a solution for post-construction waterproofing.

In this process, the waterproofing material is injected through drill holes in the structural element into the subsoil immediately in front of it. In this way, a new, functional waterproofing layer can be created outside the existing structure without having to completely expose the exterior surface.

Waterproofing of Structural Joints

Component junctions and joints are among the most sensitive areas in waterproofing of structures. This applies, for example, to connections between old and new structures or the connection of a new floor slab to the existing structure. Water and moisture can penetrate the structure at these junctions.

Depending on the structure and construction phase, joints can be formed with suitable waterproofing systems during construction or sealed post-construction. This prevents the penetration of water and moisture.



Product Groups

Range of Application	Product Group
Surface waterproofing within structural elements	PU injection resins PU injection foam resins Silicate resins Acrylate gels
Post-construction damp-proof course (DPC)	PU injection resins Acrylate gels Silicate resins Injection silanes
Filling of cracks and cavities	PU injection foam resins PU injection resins Epoxy injection resins Epoxy putty and adhesives
Consolidation of structural elements	PU injection resins Epoxy injection resins Silicate resins
Full-surface exterior waterproofing	Bitumen-acrylate dispersions
Waterproofing outside the structural element	Acrylate gels PU injection resins
Waterproofing of structural joints	PU injection resins Epoxy injection resins Acrylate gels

The various areas of application demonstrate just how diverse challenges can be when restoring historic structures. The following reference projects illustrate these challenges through specific projects and demonstrate various solutions for the preservation of historic structures.

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Petersberg Citadel in Erfurt



At the Petersberg Citadel in Erfurt, one of Europe's most significant Baroque city fortresses, comprehensive moisture remediation was carried out in the casemate level of the commander's house. The work took place in an area with wall sections up to two meters thick—a structural engineering challenge that required precisely coordinated measures.

WEBAC 1610 was used for the consolidation of masonry. The PU injection resin was specifically injected to a depth of up to 80 cm, along the edges of the vault arches, and into corners to create a frame-like stabilization. In addition, the material was injected into deeper sections of the wall to structurally reinforce the masonry for a planned opening.

WEBAC 1401—a WTA-compliant PU resin for consolidation in masonry—was used on the flat surfaces of the arches. After removing individual layers from the wall structure, WEBAC 5611—a specialized product for moisture-regulating treatment of plaster surfaces—was applied. It was applied over the entire surface of the thin plaster layer and then painted over.

These measures contribute to the long-term structural stability of the structure while preserving its historical building fabric.

Petersberg Citadel in Erfurt



Surface injection

Measures

- Injection into the edge zones of the vault arch with **WEBAC® 1610**
- Injection into the surface areas of the arches using **WEBAC® 1401**
- Full-surface application of **WEBAC® 5611** onto the plaster

Results

- Frame-like stabilization and structural reinforcement of the masonry down to a depth of 80 cm for a planned opening
- Consolidation in masonry in the surface areas of the arches
- Moisture-regulating plaster surfaces

Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Post-Construction Damp-Proof Course (DPC)/
Full-Surface Exterior Waterproofing

"Zur Historischen Mühle" in Potsdam



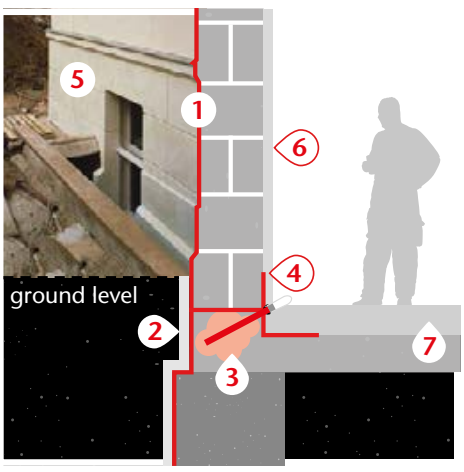
The construction of this popular tourist restaurant below Sanssouci Palace dates back to Emperor Wilhelm II and was completed in 1909. In 1996, it had to be closed due to structural deterioration.

The renovation and restoration of the building, which is a designated historic landmark, began in 1998. The basement walls, columns, and plinth exposed to splash water were permanently protected against moisture damage. In a representative section, the historic facade paint had to be protected with a reversible protective coating. The splash-water-exposed plinth was protected in accordance with these requirements in conjunction with the exterior wall waterproofing.

Exterior wall waterproofing

against ground moisture/surface water

1. **WEBAC® 5611** applied from the foundation to the top of the plinth cornice
2. Perimeter insulation
3. **WEBAC® 1403** injected (post-construction damp-proof course (DPC))
4. **WEBAC® 5611** applied on the interior
5. KEIM contact paint (lime-casein)
6. Interior wall plaster
7. Composite screed

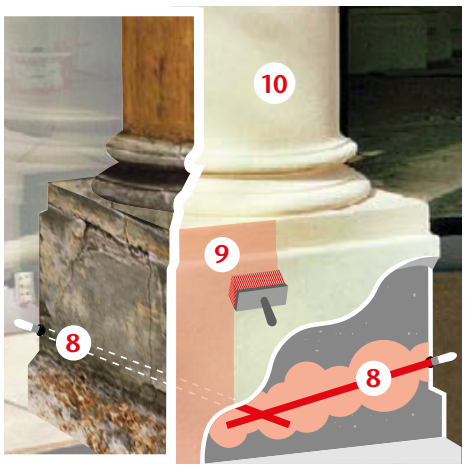




Even nearly 20 years after the renovation, the building still looks as good as new



The historic facade paint was partially treated with a reversible protective coating



Plinth waterproofing

against ground moisture/surface water

(8) **WEBAC® 1403** injected (post-construction damp-proof course (DPC))

(9) **WEBAC® 5611** applied, from the foundation to the top of the plinth

(10) KEIM contact paint (lime-casein)

Post-Construction Damp-Proof Course (DPC)/
Full-Surface Exterior Waterproofing

Neue Wache in Berlin



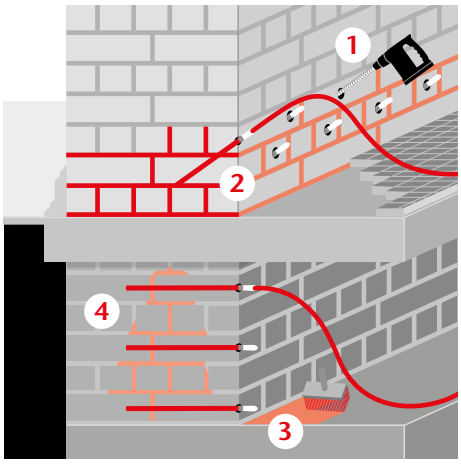
The Neue Wache was designed in 1816 by Karl Friedrich Schinkel as a guardhouse with detention cells. Long after its destruction in World War II, it was transformed in the 1990s into the Central Memorial of the Federal Republic of Germany for the victims of war and tyranny.

The transformation was completed within six months. On Remembrance Day in 1993, the “new” Neue Wache was inaugurated.

Neue Wache in Berlin

During the renovation, the narrow corridors and the enormous wall thicknesses posed a major challenge. Only with specially manufactured drill bits were the experts able to achieve the drill hole depth of up to 170 cm required for the injection.

The elastic, low viscosity polyacrylate gel WEBAC 250 was used for the horizontal waterproofing. The engineers also relied on WEBAC products for the floor waterproofing and used the bitumen-acrylate dispersion WEBAC 5611. The renovation of the ground floor took place from September 1998 through January 1999. The basement rooms were renovated from March through April 2000.



Post-construction damp-proof course (DPC)

against rising damp

(1) Injection holes (regular grid) drilled

(2) **WEBAC® 250** injected

Integrated floor waterproofing

to protect the historic structure against moisture penetration from the back

(3) **WEBAC® 5611** applied

Surface waterproofing of exterior basement walls

against widespread moisture penetration

(4) injection holes drilled and **WEBAC® 250** injected

Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Post-Construction Damp-Proof Course (DPC)/
Full-Surface Exterior Waterproofing

Former Franciscan Monastery in Kyritz



The former Franciscan monastery of St. Johannis in Kyritz was founded in the second half of the 13th century and shaped the town's religious and social life for centuries. After the monastery was dissolved in 1541, the site was partially used as a poorhouse; later, large parts of the complex fell into disrepair. The preserved cloister wing is now part of a comprehensive development plan for the Kyritz Monastery Quarter as a cultural hub.

As part of the renovation of several historic buildings, various measures were carried out for waterproofing, masonry repair, and structural reinforcement. The exterior basement walls, constructed of fieldstone masonry, were treated with WEBAC 5611 from the inside and, in some cases, from the outside as well. The bitumen-acrylate dispersion serves in this area both to waterproof the surfaces and to protect the subfloor in the basement.

Post-Construction Damp-Proof Course (DPC)/
Full-Surface Exterior Waterproofing

Former Franciscan Monastery in Kyritz

Areas that could not be exposed from the outside were secured with vertical barriers. To achieve this, WEBAC 1403 was injected to specifically reduce moisture ingress into the masonry. In adjacent brick masonry areas, a post-construction damp-proof course (DPC) was additionally installed using WEBAC 1403. This measure provides long-term protection for the plinth area against capillary rising moisture.

WEBAC 1660 was injected at the interface between the historic fieldstone masonry and adjacent new concrete sections. The injection serves both to waterproof the area and to create a structurally effective bond between the different components.

Measures

- Treatment of the exterior basement walls made of fieldstone masonry with **WEBAC® 5611**
- Surface waterproofing of the basement areas and the subfloor with **WEBAC® 5611**
- Vertical barriers and post-construction damp-proof course (DPC) with **WEBAC® 1403**
- Injection of **WEBAC® 1660** at the interface between fieldstone masonry and new concrete sections



Injection with WEBAC® 1660

Result

- Long-term protection of the plinth area against rising damp
- Protection of the subfloor in the basement
- Targeted reduction of moisture ingress into the masonry
- Waterproofing and structurally effective bonding of the various structural components

Post-Construction Damp-Proof Course (DPC)

Former Parcel Post Office in Munich



The striking rotunda, with a diameter of 52 meters, was built in Munich in 1926 according to plans by Robert Vorhoelzer and Walther Schmidt. Until 1985, it served as the central parcel post office with direct access for all delivery districts in the city. The rotunda is regarded by experts as an example of the so-called "Postbauschule" (Postal Architecture School) and is now a designated historic landmark.

Using the pressure-injection method with WEBAC 1403, a classic damp-proof course (DPC) was installed to provide long-term protection for the masonry in the base area against rising damp. The work was carried out in accordance with BuFAS Engineering Code of Practice IM-01/2009 and was specifically tailored to the requirements of the historic masonry.

This laid a crucial foundation for permanently preserving the historic structure and enabling the use of the listed historic building.

Measures

- Tailoring the measures to the requirements of the historic masonry
- Post-construction damp-proof course (DPC) in the base area using **WEBAC® 1403**, installed in accordance with the BuFAS Engineering Code of Practice IM-01/2009

Result

- Protection against capillary rising damp in the base area of the masonry



Base area

St. Vitus Church in Erling/Andechs



In St. Vitus Church in Erling / Andechs, significant cracks appeared in the vaulted ceiling above the nave. Initial restoration attempts using cement grouting did not yield the desired results. Even closing the cracks with horizontal anchors did not provide sufficient stabilization.

The solution was ultimately achieved through injection from above, above the vaulted ceiling. WEBAC 1610 was used for this purpose, a tough and solid PU injection resin tailored to the compressive and bending tensile strengths of the masonry. The cracks were structurally bonded while simultaneously stabilizing the exterior walls.

Through targeted crack grouting, the historic vaulted ceiling was permanently secured and the building fabric of the church was effectively stabilized.

Measures

- Injection from above the vaulted ceiling using **WEBAC® 1610**
- Targeted crack injection to permanently stabilize the vault

Result

- Structural bonding of the cracks in the ceiling vault
- Stabilization of the exterior walls

Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Filling of Cracks and Cavities

Bikinihaus in Berlin



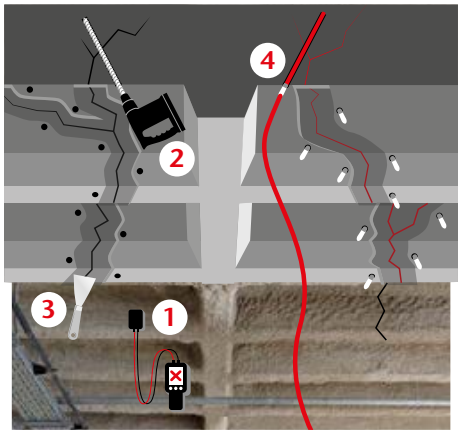
The newly restored Bikini House, 2014

Bikinihaus in Berlin

The Bikinihaus was built between 1955 and 1957. The low-rise building has six stories and is 200 meters long. The lower section originally housed stores, while the upper section contained production, administrative, and office spaces. The name caught on quickly: an open floor level on the second floor with a view of the greenery divides the building and likely reminded observers of a bikini. The original "Zentrum am Zoo" stood vacant for longer than it was in use.

It closed in 1978 and, after 32 years of dormancy, was renovated from 2010 to 2014. It is now known as the "Concept Mall Bikini Berlin", a shopping center featuring stores, a movie theater, and restaurants.

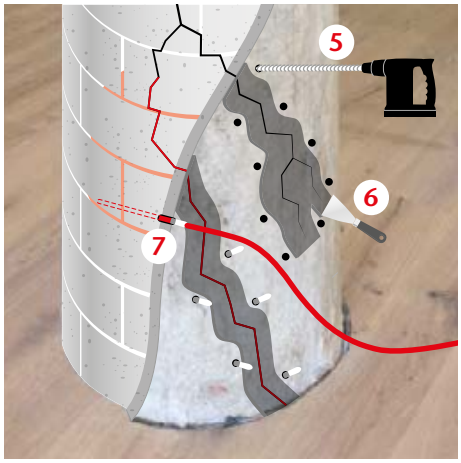
During the renovation, the Bikini building was completely gutted and stripped down to its concrete structural framework. To restore the load-bearing capacity of the ceiling structure and the support columns, voids were filled and cracks were structurally bonded.



Consolidation of the ceiling structure

Structural filling of cracks—for improved load-bearing capacity

1. Locating the reinforcement
2. Small-diameter drill holes
3. Mineral-based plugging
4. **WEBAC® 4110** epoxy resin injected at low pressure



Consolidation of the column structure

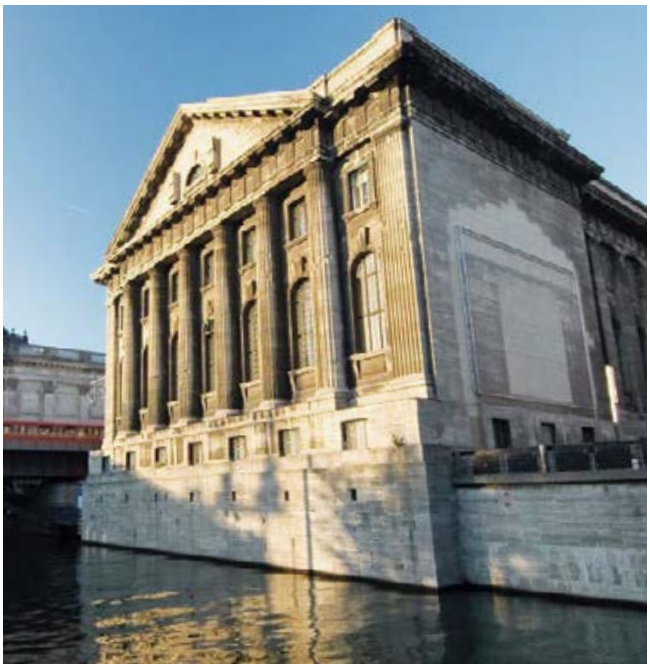
Structural filling of cracks and voids—for improved load-bearing capacity

5. Small-diameter drill holes
6. Mineral patching
7. **WEBAC® 4110** epoxy resin injected at low pressure

Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Filling of Cracks and Cavities

Pergamonmuseum in Berlin



The Pergamon Museum is part of the Berlin State Museums and is one of the most significant buildings on Museum Island. As part of the structural stabilization efforts, the renovation measures focused, among other things, on old cellar vaults and adjacent load-bearing structural elements.

Structurally significant bonding issues were observed at the junction of a load-bearing wall and the ceiling. The affected wall was approximately 1.20 m wide and 15 m long. Core samples revealed large cavities as well as bonding failures between the grout, cement paste, and masonry.

Initial grouting work began as early as mid-2017; subsequently, a new concrete facing was installed in the old basement vaults. The goal was to establish a structural bonding between the structural elements. Since grout concrete followed by injection with cement paste failed to achieve a sufficient structural bonding to the ceiling, the use of an epoxy resin was recommended based on the expert report. To resolve the structural issue, targeted grouting with WEBAC 4110 was then carried out. The use of the epoxy resin enabled the creation of a structural bond and reliably restored the structural function of the element. This measure thus made an important contribution to the long-term structural integrity of the Pergamon Museum.



Injection with WEBAC® 4110

Measures

- Targeted epoxy resin injection with **WEBAC® 4110** in accordance with the expert's recommendation

Result

- Restoration of the structural bond between the structural components

Consolidation of Structural Elements

Medieval Masonry in Freising



In Freising, a medieval masonry structure located directly on one of the Moosach's numerous canals was restored. The extensively branched river system has shaped the city for centuries: it supplied residents with water, powered mills, and served as flood protection.

For adjacent structures, however, constant contact with water has always posed a particular structural challenge. This strain was also clear in this restoration project. The historic masonry had been exposed to standing water for a long time. To protect the structure in the long term, a full-surface waterproofing treatment was carried out using WEBAC 1440. WEBAC 1440 is an injection resin for waterproofing water-stressed structural elements. It provides reliable protection against water ingress and is therefore particularly suitable for renovation projects where the existing structure is to be preserved.

Measures

- Assessment of water exposure through direct contact between the masonry and the Moosach canal system
- Injection with **WEBAC® 1440** for structural elements exposed to water

Result

- Reliable protection of the structure against water ingress



Condition of the structure

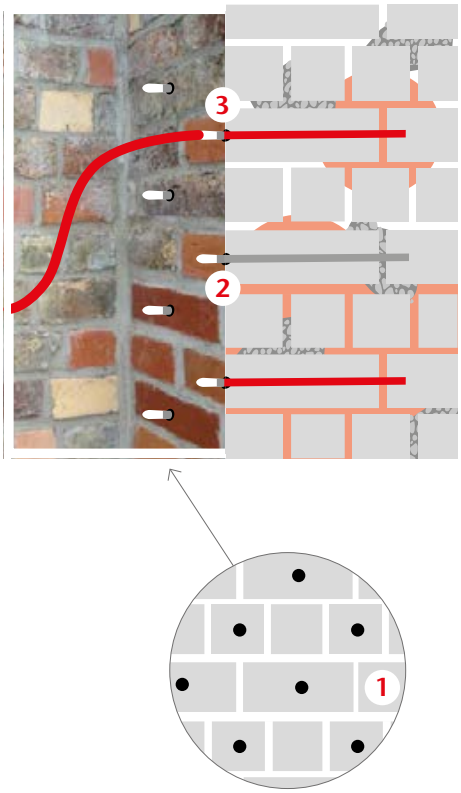


Full-surface waterproofing

St. Michael's Monastery in Rostock

Over the course of its more than 500-year history, St. Michael's Monastery has seen a great deal: It was first used as a monastery and printing press, then as a student dormitory, an armory, and a wool and grain warehouse and, until its destruction in World War II, even as a substation. In 1942, the building was destroyed by fire following an air raid and was rebuilt in the 1950s.

In the mid-1990s, structural defects were discovered in the old masonry, which required reinforcement.



In 1994, the west wing was restored, and an additional story was added. To do this, it was necessary to reinforce the masonry to increase its load-bearing capacity. Prior to the reinforcement, studies were conducted on the suitability of injection materials for consolidation of the masonry: A core sample taken after a test injection provided information about the strength of the structure, particularly regarding existing voids and the distribution of the filler. Additional moisture protection for the joints was also necessary.

Consolidation and moisture protection

for improved load-bearing capacity
and against surface water

1. Injection holes (regular positioning) drilled
2. **WEBAC® 2061** preliminarily injected to fill cavities
3. **WEBAC® 2061** (hydrophobic) injected

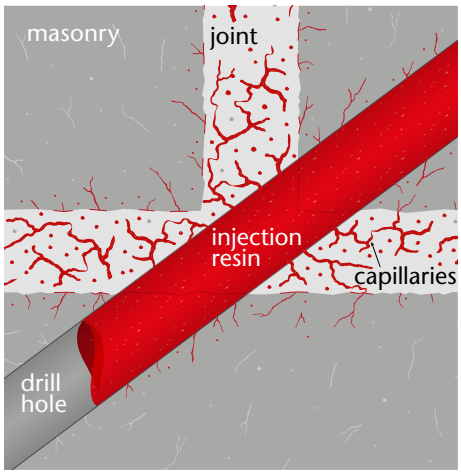
THE DISTRIBUTION OF THE INJECTION MATERIAL ...

... in old masonry is usually carried out in three phases:

Gap injection
Filling of construction-related gaps, mortar clefts and cracks

Cavity injection
Filling of cavities, fissures and large pores

Penetration
Penetration into porous structures, small pores and capillary structures





The Michaelis Monastery in Rostock

Full-Surface Exterior Waterproofing

Wartburg Castle in Eisenach

The nearly 1,000-year-old Wartburg is one of the best-preserved medieval castles in Germany. However, weathering had caused significant damage to the natural-stone defensive wall.

To permanently prevent water from penetrating the natural stone-mortar bond zone of the defense wall—which could cause it to become saturated or, in the event of frost, lead to increasing erosion—the joints and the natural stone-mortar bond zone had to be sealed.

A preliminary study determined that WEBAC 5611 is ideally suited for this purpose. It adheres to natural stone, withstands fluctuating thermal conditions, and meets the reversibility requirement for historic preservation.

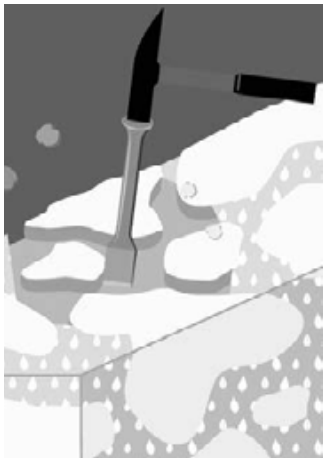
To restore the defensive wall, the joints were chiseled back to a depth of approximately 5 cm, and WEBAC 5611 was applied both to the joint mortar and onto the natural stone joint surfaces. The joints were then repointed with mortar, and the bond zone was sealed tightly so that surface water could no longer penetrate.



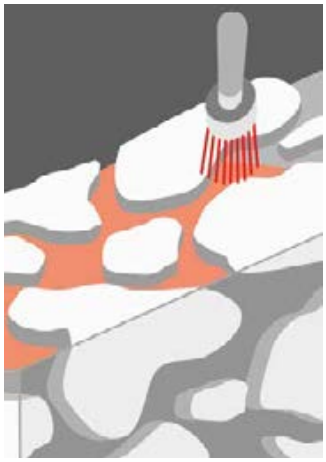


Wartburg Castle in Eisenach—world-famous not least because of Martin Luther

Sealing the joints against surface water and moisture penetration



Joints chiseled back (3 to 5 cm deep)



***WEBAC® 5611** applied (in at least 2 coats)*



Joints filled with mortar (mortar according to formula)

Full-Surface Exterior Waterproofing

St. Nikolai Church in Potsdam

St. Nikolai Church was built between 1830 and 1837 according to plans by Karl Friedrich Schinkel and is considered a significant example of German Classicism. It was destroyed during World War II. Reconstruction took place in several phases beginning in the 1950s. Further restoration work was required later.

In 2010, the renovation work on the exterior envelope was completed. The foundations and plinths were waterproofed against surface water up to the upper edge of the plinth. Additional waterproofing was carried out beneath the natural stone staircase and in the accessible roof area.

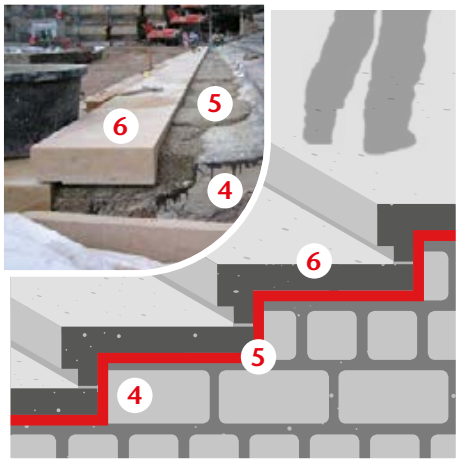
To protect the waterproofing of the sections in contact with the ground, a covering of brickwork using beaver-tail tiles was constructed in accordance with "traditional Potsdam architectural practice."



Waterproofing of the plinths

against ground moisture/surface water

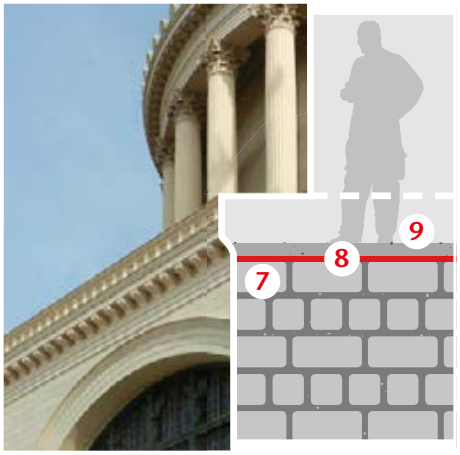
1. Wall construction exposed, surface leveled
2. **WEBAC® 5611** applied
3. Facing brickwork covered with roof tiles



Waterproofing under stair covering

against surface water

4. Support structure exposed, surface leveled
5. **WEBAC® 5611** applied
6. Covered with stair covering



Waterproofing of accessible roof areas

against surface water

7. Exposed and leveled
8. **WEBAC® 4170** applied
9. Walkable protective layer applied



St. Nikolai Church in Potsdam shines in new splendor



Permanent waterproofing of the plinth against surface water



The newly restored natural stone staircase

Waterproofing Outside the Structural Element

Castle in the Bavarian Forest

Throughout its history, the castle has served various purposes—including as a residence, a recreation center, and a clinic—and as a result, its historical structure has evolved over time. Consequently, extensive waterproofing work was required as part of the renovation project.

Waterproofing the masonry in contact with the ground posed a particular challenge. To protect against moisture penetration, a curtain injection was carried out into the adjacent soil. WEBAC 240 was used for this purpose, an injection gel designed to create an external, water-impermeable waterproofing layer. Thanks to the gel curtain injection, the historic masonry was protected against moisture without altering the visible historic building fabric. The measure made an important contribution to the long-term preservation of the building.

Measures

- Curtain injection with **WEBAC® 240** injection gel to create an external, watertight waterproofing layer

Result

- Waterproofing of the historic masonry in contact with the ground



Curtain injection



Waterproofing measures prior to the renovation of the castle

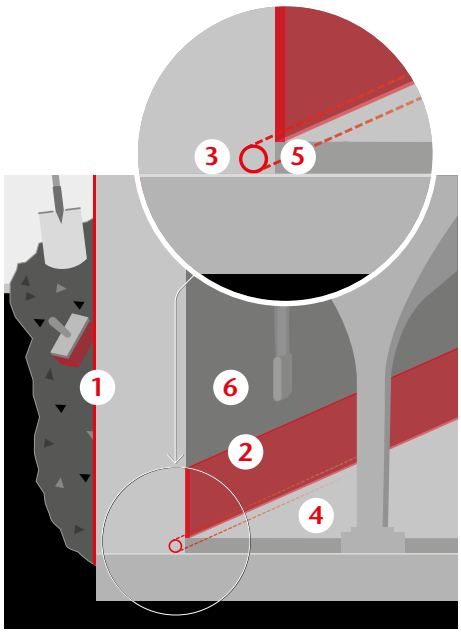
Greifswald Town Hall



An eventful history: Greifswald Town Hall was built after the city was granted municipal rights in 1250. In 1713, it burned to the ground, and in the mid-1990s, moisture penetration threatened the historic ribbed vault.

Protecting the basement from moisture intrusion was of particular importance, as it was to be used, among other things, as a guest and exhibition space, as well as for the arts and crafts market during the Advent season.

The waterproofing system was installed in accordance with historical specifications and the requirements of the historic preservation authorities, which stipulate that no materials be used that could damage the surfaces of the masonry.



Measures implemented for surface waterproofing

against pressurized groundwater

1. **WEBAC® 5611** applied to the exterior wall
2. **WEBAC® 5611** applied to the interior wall (up to approx. 50 cm above the floor finish)
3. **WEBAC® injection tube** installed
4. Waterproof concrete floor installed
5. Injection tube grouted with **WEBAC® 1403**
6. Interior plaster applied: floor/wall junction (also on **WEBAC® 5611**) for moisture decoupling

Restoration of Historic Structures 10/26 © WEBAC-Chemie GmbH

Matrix: Project/Application

		Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
	St. Nikolai Church Potsdam p. 26					✓			
	"Südtorgebäude" (Gatehouse) Sanssouci, Potsdam					✓			
	"Zur Historischen Mühle", Potsdam p. 10		✓			✓			
	Greifswald Town Hall p. 29	✓						✓	
	Botanical Institute, Rostock					✓			
	Wartburg Castle, Eisenach p. 24					✓			
	Fountain "Pferde-tränke", Sanssouci, Potsdam					✓			
	Widow Persius's Villa, Potsdam					✓			
	Potsdam Town Wall					✓			
	Hildburg Fortress					✓			
	Fortuna Portal (in front of St. Nikolai Church), Potsdam					✓			
	City Villa, Potsdam					✓			
	"Zeughaus" (Armory), Berlin					✓			
	Köpenick Town Hall, Berlin					✓			

Matrix: Project/Application

	Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
 "Löwenbräukeller", Munich					✓			
 Biesdorf Castle					✓			
 House of World Cultures, Berlin					✓			
 Village Church, Rahnsdorf					✓			
 Former Franciscan Monastery, Kyritz p. 14		✓			✓			
 Spa District, Bad Nauheim					✓			
 Petersberg Citadel, Erfurt p. 8	✓			✓				
 "Berliner Dom" (cathedral)		✓						
 "Märchenvilla", Eberswalde		✓						
 "Sonnenstein" Castle, Pirna		✓						
 "Friedrich Ebert Gymnasium", Potsdam		✓			✓			
 Semper Opera House, Dresden		✓						
 Lichtenberg Waterworks, Berlin		✓						
 Ministry of Justice, Berlin		✓						

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Matrix: Project/Application

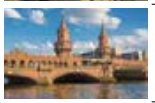
	Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
 Gatehouse, Bad Doberan		✓	✓					
 Bautzen City Museum		✓						
 Main Station, Dresden		✓						
 New Synagogue, Berlin		✓						
 Former Cigarette Factory, Dresden		✓						
 Historical Farm, Samerberg		✓						
 Rectory “Zu unserer lieben Frau”, Munich		✓						
 “Sisi” Castle, Aichach		✓						
 Günzlhofen Church		✓						
 “Villa Buchhof”, Bad Reichenhall		✓		✓				
 Building in Einstein Street, Munich		✓						
 “Maximilianeum” (Bavarian State Diet), Munich		✓						
 Bergedorf Castle, Hamburg	✓	✓	✓					
 “Fischmarkt” (Fish Market), Hamburg			✓					

Matrix: Project/Application

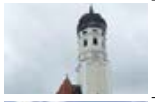
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	Hohenkammer Castle		✓						
	Project 7, Munich		✓						
	Protestant Church, Saarbrücken		✓						
	Former Royal Branch Bank, Munich		✓						
	Former Parcel Post Office, Munich p. 16		✓						
	Rent Chamber, Wächtersbach		✓						
	Neo-Baroque Villa, Frankfurt		✓					✓	
	Monastery and Castle, Bebenhausen	✓						✓	
	Mindelzell Church		✓						
	Hydroelectric Power Plant, Kranzberg				✓				
	Linderhof Castle				✓				
	Leaning Tower, Bad Frankenhausen				✓				
	Fortress, Dingolfing				✓				
	Nymphenbad Dresden Zwinger		✓			✓			

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Matrix: Project/Application

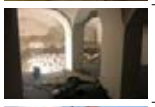
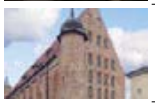
		Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
	Buildings in Dutch Quarter, Potsdam		✓			✓			
	City Theater, Hildburghausen					✓			
	Bikinihaus Berlin p. 18			✓					
	Gasometer Dresden			✓					
	Dresden City Palace			✓					
	Oberbaum Bridge, Berlin			✓					
	Erlwein Storage Facility, Dresden			✓					
	“Frauenkirche”, Dresden			✓					
	Ship Canal Lift, Niederfinow			✓					
	City Villa, Potsdam			✓					
	Train Station, Dresden-Neustadt			✓					
	State Museum, Dresden			✓					
	Olympic Park, Munich			✓					
	Opera House, Cologne			✓					

Matrix: Project/Application

		Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
	Pergamon Museum, Berlin p. 20			✓					
	St. Vitus Church, Erling/Andechs p. 17			✓	✓				
	“Neue Wache”, Berlin p. 12					✓	✓		
	“Admiralspalast”, Berlin	✓							✓
	Bornstedt Royal Estate						✓		
	Imperial Railway Station, Potsdam						✓		
	Passage Dresden						✓		
	Lichtenwalde Castle						✓		
	Hartenfels Castle, Torgau						✓		
	Bad Muskau Castle						✓		
	Spandau Citadel, Berlin						✓		
	Heringsdorf Train Station	✓	✓			✓			
	Bellevue Palace, Berlin						✓		
	“Brühlsche Terrassen”, Dresden						✓		

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Matrix: Project/Application

	Surface Waterproofing Within Structural Elements	Post-Construction Damp-Proof Course (DPC)	Filling of Cracks and Cavities	Consolidation of Structural Elements	Full-Surface Exterior Waterproofing	Waterproofing Outside the Structural Element	Waterproofing of Structural Joints	Other
 "Salzstadel", Rosenheim					✓			
 Memorial Neuengamme					✓			
 Villa Rustica, Boos						✓		
 Castle in the Bavarian Forest p. 28						✓		
 Medieval Masonry, Freising p. 21				✓				
 St. Michael's Monastery, Rostock p. 22				✓				
 Mural, Erfurt			✓	✓				
 Residential Complex (former farm), Munich				✓				
 Stables of a historic castle								✓

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