2025

INTERNATIONAL BEST PROJECT AWARDS WINNERS

XYPEX®

2025 INTERNATIONAL BEST PROJECT AWARDS

About the Xypex International Best Project Awards - Excellence in Concrete Waterproofing

Xypex's international network of distributors delivers its unique Crystalline Technology to customers worldwide, providing world-class technical service and consistent project performance to the global construction industry. The Xypex International Best Project Awards recognize the efforts and dedication of this global team by showcasing projects that demonstrate excellence in challenging construction environments using Xypex crystalline waterproofing technology.

Xypex teams across five continents have submitted outstanding projects from infrastructure, water and wastewater facilities, industrial structures, and general construction applications. Projects in this year's program were evaluated based on engineering complexity, construction challenges, durability requirements, and the integration of crystalline waterproofing within the concrete structure. Across these selected projects, Xypex was the trusted choice of engineers, architects, contractors, and owners to deliver superior waterproofing and chemical protection performance in the most demanding environments.

About Xypex Chemical Corporation

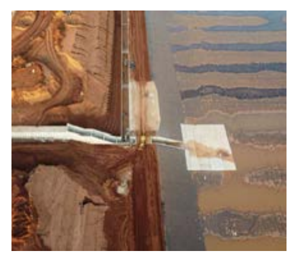
Xypex Chemical Corporation is a global leader in waterproofing, protection, and repair of concrete structures, with over 55 years of experience and a track record in over 110 countries. Xypex Crystalline Technology outperforms other waterproofing methods because of its unique ability to become an integral, permanent part of the concrete matrix.

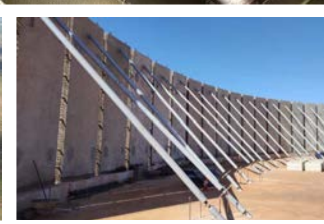
CONTENT

BEST PROJECT
WORLDWIDE

Suzano Cerrado

Ribas do Rio Pardo, Mato Grosso do Sul, Brazil





The Suzano Cerrado Project, located in Ribas do Rio Pardo, represents the world's largest single line pulp production facility. With an investment of BRL 22.2 billion and a site covering approximately 4.5 million square meters, the project required long term waterproofing and chemical protection of critical concrete structures used throughout the pulp production process. Given the scale of the investment and the aggressive industrial environment, the primary challenge was ensuring durability and longevity of reinforced concrete structures exposed to moisture, chemicals, and industrial process conditions.

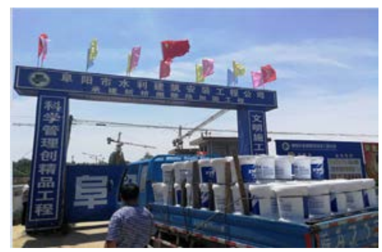
To address these requirements, crystalline technology was specified as part of the durability strategy. Xypex Admix C-500 NF was added directly to the concrete at a dosage of 1 percent relative to cement consumption, while Xypex Concentrate was applied as a surface coating at 1 kilogram per square meter in designated areas. A total of 65,000 kilograms of Xypex Admix C-500 NF and 5,500 kilograms of Xypex Concentrate were used across key structures including stormwater collection galleries, effluent treatment plants, water treatment facilities, treated water tanks, river water intake structures, evaporation units, boilers, and cooling towers.

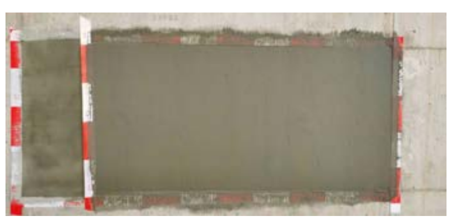
2025
International Best Project Awards

BEST PROJECT
WORLDWIDE - RUNNER UP

Yangtze-to-Huaihe Water Diversion

Anhui Province, China





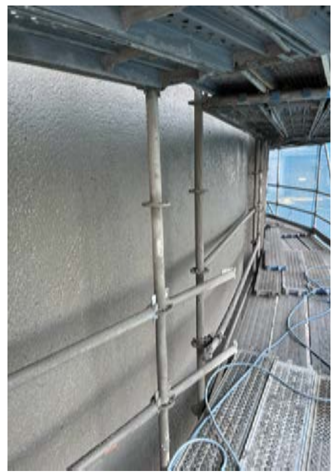
The Yangtze-to-Huaihe Water Diversion Project (YHWD) is a large-scale inter-basin water conservancy program designed to transfer water from the Yangtze River system northward to support urban and rural water supply, inland navigation, irrigation replenishment, and ecological improvement across Anhui Province. The project corridor is commonly described as three interconnected sections; Yangtze-to-Chaohu Diversion, Jianghuai Connection, and Northward Transfer; and includes numerous geographically dispersed hydraulic structures such as ship locks, sluice gates, pumping stations, and water diversion nodes.

Given the long-term exposure of these structures to aggressive water environments and fluctuating service conditions, durability and service life were key technical considerations. Xypex was selected based on its established performance history in Anhui Province, where it has been widely used in water conservancy and navigation structures. The waterproofing approach for YHWD focused on the use of Xypex Concentrate as a surface-applied penetrating crystalline treatment, intended not only to reduce water ingress but also to enhance the long-term durability of hydraulic concrete.

BEST INFRASTRUCTURE
WORLDWIDE

Heracles Lafarge Holcim – Cement Plant & Fly Ash Silo

Euboea, Greece



The Heracles Lafarge Holcim cement plant on the island of Euboea, Greece, operates in one of the most demanding coastal environments in the Mediterranean. Two of its critical industrial silos, Cement Silo 720 and the Fly Ash Silo, had suffered significant deterioration to their outer concrete shells as a direct result of prolonged exposure to seawater fogging, high humidity, and driving rain. Left unaddressed, the continued ingress of moisture and chlorides posed a serious long-term risk to the structural integrity and operational reliability of both assets.

ENKA Structural Services SA was appointed as general contractor for both phases of the rehabilitation program. Phase 1 addressed Cement Silo 720, with Xypex Concentrate applied across a total surface area of 4,320 m^2 using approximately 2,800 kg of product. Work was carried out between June and December 2023. Phase 2 followed with the Fly Ash Silo, covering 2,830 m^2 with approximately 2,500 kg of Xypex Concentrate, completed between May and December 2024. Across both phases, a combined area of 7,150 m^2 was treated with a total of approximately 5,300 kg of product, making this one of the largest industrial rehabilitation projects completed with Xypex crystalline coatings in the European market.

XYPEX

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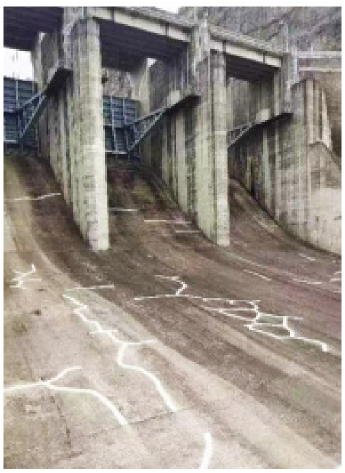
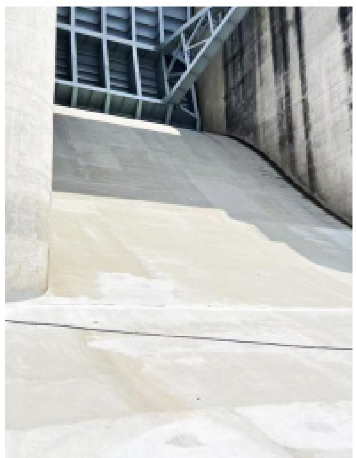
BEST INFRASTRUCTURE
WORLDWIDE - RUNNER UP

Bai Xi Reservoir Spillway

Zhejiang Province, Ningbo (Ninghai County), China





The Bai Xi Reservoir spillway had experienced progressive surface deterioration, cracking, and water infiltration due to long-term exposure to flowing water, weathering, and operational stress. Visible cracking—ranging from fine surface cracks to wider structural cracks exceeding 0.2 mm, raised concerns regarding durability, watertightness, and long-term serviceability of the spillway structure. To address these challenges, a comprehensive rehabilitation strategy was implemented using Xypex crystalline waterproofing and repair systems. Prior to repair, the concrete surface was thoroughly prepared, and existing cracks were evaluated and treated based on size and severity.

Micro cracks were treated through crystalline penetration, while larger cracks and surface defects were repaired using Xypex Megamix II, providing structural restoration and compatibility with the existing concrete substrate. Following repairs, Xypex Concentrate was applied to the spillway surface to form a permanent, integral waterproofing system capable of resisting ongoing water exposure. The combined use of Xypex Concentrate and Xypex Megamix II ensured not only effective crack treatment and surface rehabilitation, but also enhanced the concrete's resistance to water penetration, chemical attack, and future deterioration.

BEST GENERAL CONSTRUCTION
WORLDWIDE

Xiangyang Sen De Run Su Ling Ting Residence

Xiangyang, China

The Xiangyang Sen De Run Su Ling Ting Residence is the first high-end residential benchmark project in the region developed under the concept of a "Fourth-Generation Residence." The total construction area is approximately 280,000 m^2, covering high-rise residential buildings, sky gardens, ecological courtyards, vertical greening systems, and smart community facilities. The project aims to create a "home within the urban forest," achieving an ecological living model where every unit has its own garden and every level features greenery.

After multiple rounds of technical evaluation, the project team decided to abandon the conventional "membrane-dominant external waterproofing" system for critical areas such as the basement roof slab, sky gardens, and post-cast joints, and to adopt a composite waterproofing system consisting of: Structural self-waterproofing concrete as the core, cementitious crystalline waterproofing materials (Xypex) as the enhancement, and flexible waterproofing layers as supplementary protection. The core material selected was the Xypex crystalline waterproofing series. Through its crystalline reaction mechanism, Xypex enhances the self waterproofing capability of the concrete substrate from within. The cement slurry used in the wet-application process also provided continuous moisture curing for the Xypex coating, promoting full hydration and improving waterproofing performance.

Notably, despite prolonged exposure to rain, sunlight, and potential root penetration, the waterproofing layer showed no blistering, cracking, or failure, maintaining excellent structural integrity and durability. Practice has proven the effectiveness and cost efficiency of Xypex materials in resolving long-term leakage problems in buildings. This successful case demonstrates Xypex's superior performance under complex conditions and provides a valuable technical reference for achieving the dual goals of ecological sustainability and structural durability in high-density urban residential developments.

BEST GENERAL CONSTRUCTION
WORLDWIDE - RUNNER UP

Plaza Roztyly

Prague, Czech Republic

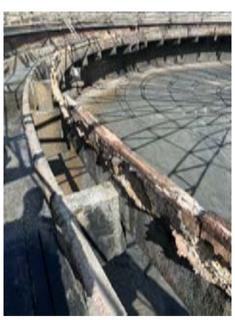
Plaza Roztyly is a modern office building located in Prague 11, adjacent to the Roztyly metro station on line C. Completed in March 2024, it offers approximately 21,700 square meters of office space across seven floors, along with 1,600 square meters of retail space on the ground floor. As part of the construction process, special attention was given to the waterproofing of the underground structure. Nekap was responsible for the waterproofing of the underground structure, which included the use of Xypex Admix C-1000 NF and Manorteq Static Waterbars as part of the waterproofing system, along with waterproofing joints, penetrations, and other details. Nekap provided a full waterproofing guarantee for the substructure.

BEST WATER/WASTEWATER
WORLDWIDE

Pre-Sedimentation Tank

Eerbeek, The Netherlands





The project involved the urgent restoration of a 36-meter-diameter pre-sedimentation tank at a wastewater treatment plant that processes over 4 million cubic meters of industrial water annually. Recently, the situation reached a critical point when the tank, recently covered to comply with odour regulations, suffered severe concrete deterioration due to trapped hydrogen sulphide (H_2S) gas, as well as condensation water, which reached concentrations of 500 ppm.

To address this, the team used ultra-high-pressure (UHD) demolition to remove damaged concrete, then applied a specialized Xypex system. Initially, the plan was to renovate the tankwalls, overflow edge and center console with a shotcrete layer of Megamix II Bio-San. When on-site inspections revealed deeper structural damage than anticipated, the team quickly adapted by cutting of rebuilding the overflow edge and center console using concrete treated with Xypex Bio-San additive, while the outer walls were renovated using over 11.000 kilo's of Xypex Megamix II with Bio-San, to restore the tank wall to its original thickness and strength. This approach enabled simultaneous preparation and application, significantly reducing the lead time. As a result, the project was completed successfully within one month November 2024, receiving a full KIWA audit approval.

BEST WATER/WASTEWATER
WORLDWIDE - RUNNER UP

Pinheiros Pumping Station

São Paulo, Brazil

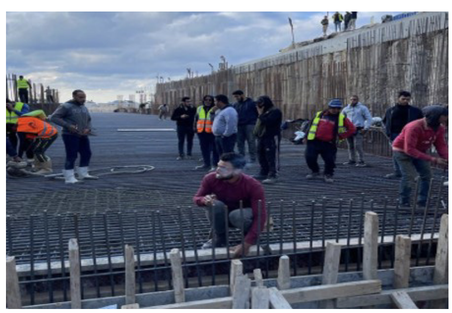
The Pinheiros Sewage Pumping Station is a critical component of the wastewater transportation infrastructure of the São Paulo Metropolitan Region. Operating since December 1999, the station consists of two concentric circular shafts constructed in reinforced and prestressed concrete, with diameters of 25.60 meters and 13.70 meters and an installed pumping capacity of 19.2 cubic meters per second. After years of continuous operation, structural degradation became evident in areas exposed to severe sanitary sewage environments, particularly in the upper regions of the load chambers. The deterioration was caused by biogenic sulfuric acid generated through microbial activity under anaerobic conditions, compromising durability, mechanical strength, and long-term structural integrity.

G20 Engenharia performed the execution between November 2020 and April 2022, including the removal of degraded concrete, localized repairs, surface restoration, and installation of protection systems MC-Bauchemie Brazil provided technical support and supplied materials throughout the process. Xypex Bio-San C-500 was incorporated directly into the micro concrete mix at a dosage of 1 percent by weight of cement, with a total of 500 kilograms used within approximately 700 square meters of surface area exposed to severe conditions.

BEST REGIONAL AWARD
AFRICA

Tunnel 45

Alexandria, Egypt



Located next to the Mediterranean, the tunnel faced several challenges due to chemicals in the water and extreme hydrostatic pressure. Tunnel 45 was constructed using Xypex Admix C-1000 NF, which was added to the concrete mix at the time of batching, speeding up the construction schedule. The goal of waterproofing and protection of concrete in tunnels is to prevent water passage due to hydrostatic pressure, safeguard the substructure's interior from water damage, and protect reinforcing steel from corrosion. Concrete structures, inherently porous and prone to defects such as cold joints, honeycombs, and shrinkage cracks, are vulnerable to leaks and accelerated deterioration. Xypex Admix C-1000 NF addresses these issues by becoming an integral part of the concrete matrix, reducing the damaging effects of water penetration and withstanding extreme hydrostatic pressure.

The Central North Coast Construction Authority supervised the project and consulted the Engineering Center at the Faculty of Engineering, Alexandria University. The main contractor, Al-Gharabli, for the Integrated Engineering Works Company (GEICO), executed the construction with waterproofing specifications meticulously developed by Beton Technical Office, Xypex Egypt, under Engineer Amr Saad.

BEST REGIONAL AWARD
AFRICA - RUNNER UP

Evergreen Apartment

Kiyovu, Nyarugenge District, Kigali, Rwanda

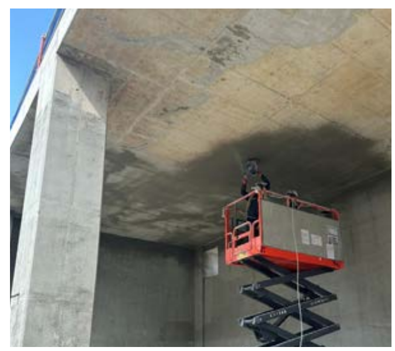
Evergreen Apartment is an exclusive luxury multi-story residential development located in Kiyovu, one of Kigali's premium neighbourhoods near the city center. The project includes a G+5 structure with a basement, swimming pool, wet areas, and a basement footprint of approximately 1,040 square meters. Given Kigali's humid climate and recurring rainy seasons, the development faced sustained moisture exposure, hydrostatic pressure risks in below-grade elements, and heightened leak potential in swimming pool structures, bathrooms, and pipe penetrations.

To mitigate these risks, the project team prioritized an integrated crystalline waterproofing solution to protect the concrete mass and reduce reliance on surface membranes. Xypex Admix C-1000NF was incorporated into the swimming pool and basement concrete at a dosage of 2 percent of total cement weight to provide integral waterproofing for below-grade and water-retaining elements. For detailing and high-risk zones, Xypex Patch'n Plug was applied at pipe penetrations, toilet areas, and local leak points prior to coatings Xypex Modified and Xypex Concentrate slurry coats were then applied in bathrooms, pipe chases, wet areas, and repair zones to enhance crystalline formation within surface pores and capillaries.

BEST REGIONAL AWARD
ASIA

Gumi 500 MW LNG Combined-Cycle Power Plant

Gumi, South Korea



The Gumi 500 MW LNG Combined-Cycle Power Plant was developed as a high-efficiency power generation facility intended to operate reliably under demanding environmental and operational conditions. The project included extensive reinforced concrete structures such as cooling tower basins, pump stations, water storage tanks, sewage facilities, and the main control building basement. These structures were exposed to long-term risks including water ingress, chloride exposure, high humidity, and repeated wet and dry cycling. As a result, the owner required a permanent waterproofing solution that would support high availability and reduce lifecycle maintenance demands.

To address these requirements, a Xypex Crystalline Technology system was selected to provide integral waterproofing within the concrete matrix. Potential application risks such as surface laitance, overly smooth or dry substrates, joint leakage, premature hydrostatic pressure, and rapid surface drying were identified early and managed through a structured Xypex Application Risk Matrix. During execution, Xypex Patch'n Plug, a fast-setting hydraulic cement, was used to stop active water ingress at construction joints, pipe penetrations, and localized defects. Xypex Concentrate was then applied as a slurry coating to both horizontal and vertical surfaces, where its crystalline technology reacts with moisture to form insoluble crystals that block capillaries and micro-cracks within the concrete.

BEST REGIONAL AWARD
ASIA - RUNNER UP

Jiangbei Bridge

Ningbo City, China

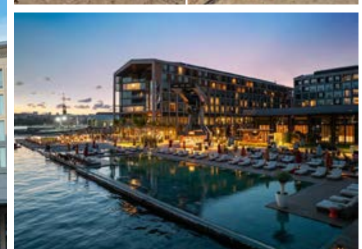
The bridge is located on Jiangbei Avenue in Ningbo City, Zhejiang Province, and crosses the Yao River. The bridge was opened to traffic on December 30, 1996. The total bridge length is approximately 551 m, with a structural configuration of 8 × 25 m + 2 × 35 m + 9 × 25 m prestressed T-beams. During routine maintenance, irregular fine cracks were found in the prestressed T-beams of the northern approach section. Due to the bridge's age, localized concrete reinforcement exposure and rust expansion were also observed.

Considering that Jiangbei Bridge has been in service for a long period, and in order to enhance the durability of the prestressed T-beam concrete and extend its service life, it was decided to use the Xypex Concentrate crystalline slurry coating system for surface rehabilitation and strengthening. Xypex crystalline technology contains proprietary active chemical ingredients that react with the inherent chemical components and porosity of cementitious materials. The repair works were completed on November 23, 2023, and passed inspection. All cracks on the bridge deck were observed to be sealed. After nearly one year of continuous monitoring, the cracks remained closed with no new cracking observed.

BEST REGIONAL AWARD
EUROPE

Tersane Istanbul Rixos Pool

Istanbul, Marmara Region, Turkey



The Tersane Istanbul Rixos Overwater Pool, located at the Golden Horn in Istanbul, represents Turkey's first floating pool application and a pioneering engineering achievement. The project required a durable structural system capable of withstanding simultaneous exposure to high-salinity, pressurized seawater from the exterior and chlorinated pool water from the interior. As the only protective barrier between these aggressive environments was the concrete structure itself, long-term watertightness and durability were critical performance requirements. To address these conditions, structural C35 concrete incorporating Xypex Admix C-1000NF was placed directly in a marine environment. The integral crystalline technology provided permanent waterproofing protection within the concrete matrix, enabling resistance to hydrostatic pressure and chloride penetration.

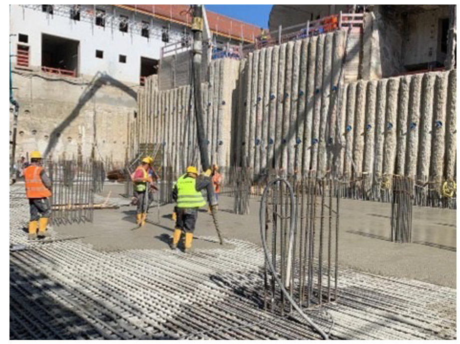
Following placement, chamfered areas and critical joints were treated with Xypex Patch'n Plug to reinforce vulnerable transition points. For additional protection under negative-side exposure, Xypex Patch'n Plug was applied from the interior of the pool to support long-term watertightness under high-salinity, pressurized seawater conditions. This approach enabled the project team to use a streamlined waterproofing strategy rather than multiple-layer systems, resulting in time savings and a simplified application during construction.

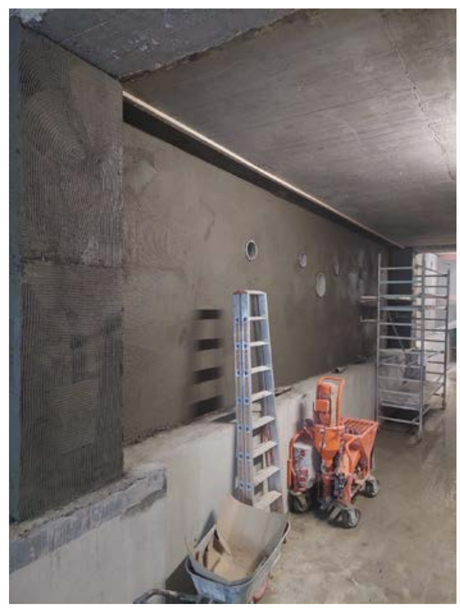
BEST REGIONAL AWARD

EUROPE - RUNNER UP

Google Campus

Arnulfstraße, Munich, Germany





The redevelopment of the historic Arnulfpost site into the Google Campus Germany required a comprehensive waterproofing strategy for a large-scale, water-impermeable underground structure, including a new parking garage and rehabilitation of protected historic buildings. The project encountered significant groundwater pressure, leaking bored pile joints, and prior waterproofing systems that had not performed under hydrostatic conditions.

To address these conditions, a phased crystalline waterproofing approach was implemented. Xypex Patch'n Plug and Concentrate dry pack systems were applied for active leak repair and bored pile joint remediation under high water pressure. Xypex Admix C-1000NF was incorporated directly into over 5,000 m^3 of structural concrete to provide integral waterproofing. Subsequent crack and joint repair treatments were carried out where required, and more than 3,000 m^2 of textile-reinforced concrete incorporating crystalline technology was installed to rehabilitate and waterproof the historic basement structures. The crystalline technology provided permanent, maintenance-free waterproofing and enhanced durability across both new and heritage structures, supporting long-term asset protection for this landmark development.

BEST REGIONAL AWARD
LATAM

Moon Palace The Grand Punta Cana

Punta Cana, La Romana, Dominican Republic

The construction of Moon Palace The Grand Punta Cana, a significant hospitality development in the Dominican Republic, required a highly durable concrete waterproofing solution due to its coastal environment and continuous exposure to moisture and saltwater. The primary challenge was to prevent water leakage from the inside while protecting the reinforcement steel from saltwater attack, ensuring long-term structural durability.

Xypex was selected after other tested systems failed to achieve the required level of performance. A total of 196,200 lb of Xypex Patch'n Plug and 81,180 lb of Xypex Concentrate were used on the project. Patch'n Plug was applied to stop active water leaks and heal cracks. In contrast, Xypex Concentrate was applied to the concrete to initiate crystallization within the concrete matrix, permanently reducing permeability. The Xypex system was implemented after replacing a previous waterproofing system, demonstrating the project team's commitment to long-term performance.

BEST REGIONAL AWARD
LATAM - RUNNER UP

Pacaembu Football Stadium

São Paulo, Brazil

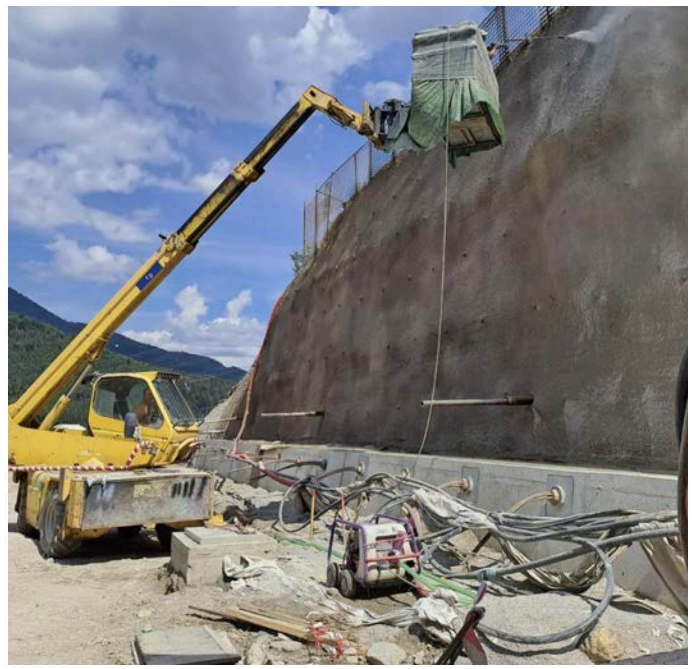
The Pacaembu Stadium Retrofit was part of a comprehensive modernization cycle initiated in 2021, following the stadium's concession in 2020. A key requirement of the retrofit was the waterproofing of the new grandstands, replacing the previous seating structures. The challenge involved coordinating with all stakeholders to develop the necessary complementary treatments and precautions for joints and structural connections, while emphasizing strict control of concrete technology during manufacturing, transportation, and installation.

To address these requirements, Xypex Admix C-500 NF was incorporated directly into the concrete mix at a dosage of 1 percent by weight of cement. A total of 8,000 kilograms was used, added at the precast factory during production of the grandstand elements. Xypex provided specialized technical support throughout the project, working closely with the consortium led by PROGEN, Cassol Pré-Fabricados for production and installation of the grandstands, and project designers. This collaborative technical integration ensured correct specification, application, and quality control for a project of high complexity and national relevance. The excellence of the intervention was nationally recognized in 2025 when Cassol received the ABCIC Project of the Year Award, highlighting the Pacaembu project as a benchmark in engineering, innovation, and concrete industrialization in Brazil.

BEST SMALL-SCALE PROJECT
WORLDWIDE

The Čebrať Tunnel

Ružomberok, Slovakia



The Čebrať Tunnel is an important part of Slovakia's D1 motorway, the main transport route connecting the eastern and western regions of the country. Located near the town of Ružomberok, the tunnel stretches 2,026 meters. Xypex Modified was applied at the tunnel's western portal to protect the reinforced concrete slope stabilizers and extend their service life. By increasing the concrete's resistance to water penetration and aggressive chemicals, the application of Xypex Modified played a key role in ensuring the long-term durability and structural integrity of the slope stabilization system.

BEST SMALL-SCALE PROJECT
WORLDWIDE - RUNNER UP

Paint Products Sedimentation Tank

Marijampolė, Lithuania

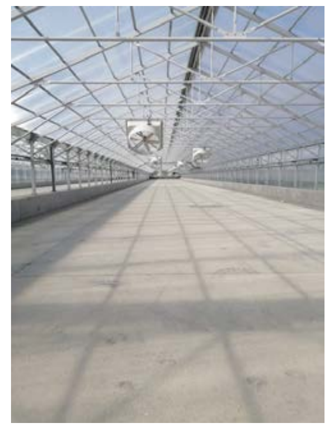
A waterproofing project for a paint product settling tank was successfully completed in Marijampolė. This concrete tank is designed for the collection and storage of paints, solvents, and other liquid materials; therefore, it was essential to ensure maximum resistance to aggressive chemical exposure. Xypex crystalline technology was selected for the project to provide long-term, reliable protection against water and chemical attack. The tank surfaces were first carefully prepared — impurities were removed, and proper adhesion between the concrete and the waterproofing layer was ensured. Then, a two-layer crystalline system was applied: the first layer of Xypex Concentrate, followed by a second layer of Xypex Modified. Thanks to this technology, the following results were achieved:

- Complete protection against water penetration: the concrete structure becomes impermeable from both the inside and outside.
- Resistance to chemicals and corrosion: the tank can safely store paints, solvents, and other aggressive substances.
- Self-healing of cracks: the crystalline structure seals cracks up to 0.5 mm, extending the service life of the structure.
- Durability and operational safety: Xypex products ensure long-term performance without loss of waterproofing properties.

SPECIAL RECOGNITION
WASTEWATER

UPOV Zaprešić Wastewater Collection & Treatment Plant

Zaprešić, Croatia



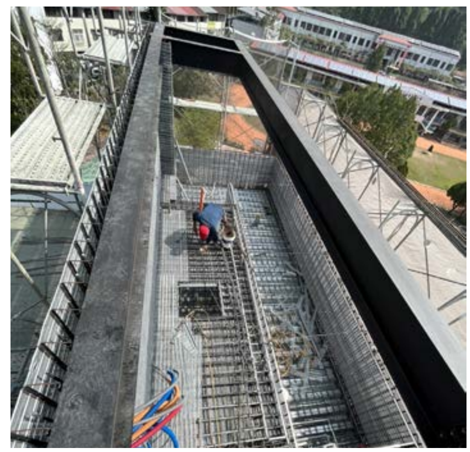
The UPOV Zaprešić project involved the construction of new wastewater treatment and collection structures that required reliable performance under continuous exposure to wastewater, moisture, and aggressive environmental conditions. Ensuring long-term watertightness and durability of the concrete elements was critical to meeting operational and service-life requirements. To address these demands, integral concrete waterproofing was specified for the concrete structures to limit water ingress, improve durability, and reduce dependence on surface-applied systems. The concrete was designed using grades C30/37 and C35/45 and classified for exposure to carbonation, chlorides, chemical attack, and freeze–thaw conditions.

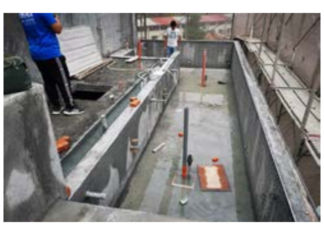
Xypex crystalline waterproofing products were incorporated across key application areas, including treatment and collection structures. Xypex Admix C-1000 NF was used as an integral component of the concrete mix, while Xypex Concentrate, Xypex Modified, and Xypex Patch'n Plug were applied where required to support watertight construction details and localized treatment. As a result, the concrete structures achieved improved durability resistance to water penetration and aggressive exposure conditions. The integrated approach supports long-term watertight performance, crack self-healing, and reduced maintenance requirements, extending the operational lifespan of the wastewater treatment facility through consistent, reliable performance.

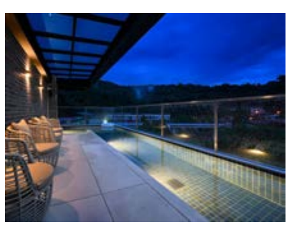
SPECIAL RECOGNITION
BEST ARCHITECTURAL

Hotel Beore

Taiwan Region







Situated in the picturesque Sun Moon Lake Scenic Area in Taiwan, Hotel Beore is a boutique retreat that artfully combines natural inspiration with architectural elegance. Construction began in January 2021, and after nearly three years of dedicated craftsmanship, the hotel officially opened its doors in October 2023. In this naturally humid and rain-prone region, the owner set exceptionally high standards for waterproofing performance, emphasizing long-term durability and minimal maintenance.

To meet the specific requirements of various structural elements, Hotel Beore adopted two Xypex products: Xypex C-1000NF — applied in the following key structural areas: Elevator pit, Ground slab (1F), Roof projections and Swimming pool shell. DS 1 — applied as a dry-shake surface treatment on freshly poured concrete slabs, including: All outdoor terraces, Rooftop slab and all bathroom and restroom floors.

Behind the scenes, Xypex quietly protects the hotel from below ground to rooftop — from the swimming pool to each bathroom floor — ensuring every hidden layer of waterproofing reflects the same commitment to excellence that defines the entire property.

XYPEX®

+1(604) 273.5265
enquiry@xypex.com
www.xypex.com

13731 Mayfield Place, Richmond, BC, V6V 2G9 Canada

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