



Aquarium MICHIN Mexico City



2023

ABOUT THIS PROJECT:

Market Segments:
Water Holding Structures
and Marine Structures

Owner:
Acuarios Michin SAPI
de CV (CEO – Engineer
Rodrigo Alvarez)

Products Used:
Xypex Admix C-1000
Xypex Concentrate
Xypex Patch'n Plug
Xypex Megamix II

Xypex Representative:
Grupo MG

Engineering:
Grupo Constructor Danos

Concrete Producer:
CEMEX S.A. de C.V

Location:
Mexico City, Mexico

The Aquarium MICHIN project, located in the bustling Mall Parque Tepeyac in Mexico City, is the largest aquarium in Latin America. This ambitious project began in May 2021 and was completed on October 10, 2023. The aquarium showcases the latest advancements in construction technology, providing an immersive experience for visitors.

The innovative use of Xypex crystalline technology was crucial in achieving the project's primary goals: ensuring that the structures were waterproof and resistant to chlorides and the harsh marine environment, protecting the reinforcing steel from corrosion, and safeguarding the health of the marine life housed within.



The construction involved significant collaboration between Acuarios Michin SAPI de CV, led by CEO Engineer Rodrigo Alvarez, and the engineering firm Grupo Constructor Danos.

The concrete was supplied by CEMEX S.A., with Grupo MG as the Xypex distributor. Xypex products were chosen from the outset due to their proven performance in the Michin Aquarium in Puebla, Mexico, where Xypex replaced another crystalline waterproofing brand after comparative tests by the project's engineering team demonstrated its superior performance.



Xypex crystalline technology withstands extreme hydrostatic pressure by forming a non-soluble crystalline structure within the concrete's interconnected pores, becoming a permanent part of the concrete matrix.

This not only prevents the ingress of water and chemicals like chlorides but also establishes a self-healing mechanism, as the crystalline formations continue to reactivate whenever water is present, sealing new micro-cracks over the structure's lifetime.



This continual self-healing process extends the concrete's service life and reduces maintenance needs.

A total of 8,500 cubic meters of Xypex Admix C-1000 treated concrete was used in the construction of the 28 fish tanks and the massive 1-million-liter saltwater shark tank. The use of Xypex admixtures saves time and money, as they are mixed with concrete during batching eliminating the need for separate waterproofing crews and allowing the backfilling of structures sooner.

In addition to Xypex Admix C-1000, Xypex Patch'n Plug – a fast-setting and crystalline enhanced hydraulic cement mix capable of halting flowing water within seconds – and Xypex Concentrate – a versatile cementitious crystalline waterproofing surface-applied coating – were utilized for sealing construction joints and repairing minor concrete defects, providing immediate and durable waterproofing solutions.

This financial efficiency was complemented by the project's adherence to tight delivery schedules, thanks to the streamlined application processes and integration of Xypex technology. Furthermore, the non-toxic nature of Xypex materials ensured the safety and well-being of the aquarium's marine inhabitants.

The completion of Aquarium MICHIN marks a milestone in construction and environmental stewardship, demonstrating the effectiveness of proprietary Xypex crystalline technology in delivering durable, sustainable, and safe marine environments.

The success of this project validates Grupo MICHIN and Grupo Constructor Danos's choice of using Xypex as the waterproofing solution in all their future projects, cementing its legacy in innovative structural solutions.

