

# Museum Construction Implements a Solution for Watertight Protection

PREPRUFE® and BITUTHENE® waterproofing used to protect 65€ million museum.

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| Project              | Museum of European and Mediterranean Civilisations (MuCEM)    |
| Client               | French Ministry of Culture                                    |
| Architect            | Rudy Ricciotti and Roland Carta                               |
| Contractor           | Dumez Sud + Freyssinet Sud-Est (VINCI Construction France)    |
| Structural Engineers | SICA and Lamoureux & Ricciotti                                |
| GCP Solutions        | PREPRUFE® pre-applied waterproofing, BITUTHENE® waterproofing |

# The Overview

## The Project

Built on the shores of the Mediterranean Sea, the new 65€ million Museum of European and Mediterranean Civilisations (MuCEM) in Marseille was designed to deliver exceptional resistance to the challenging and aggressive coastal conditions.

Designed by architects Rudy Ricciotti and Roland Carta, and built by Dumez Sud + Freyssinet Sud-Est (VINCI Construction France), MuCEM sits on reclaimed land at the entrance to Marseille's historic harbour—between a 17th century fort and former cruise terminal. A spectacular 15,000 m<sup>2</sup> cube, covered with a latticework reinforced UHPC concrete shell, it is the first national museum exclusively located outside the French capital and marks the year of Marseille as the European Capital of Culture.



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*"Preventing water penetration and migration around the foundations, the application of Preprufe® will protect the museum design and its collections and expositions for many years to come."*

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Due to its coastal proximity, museum construction structural engineers, SICA and Lamoureux & Riciotti, required a comprehensive waterproofing system, which would protect the slab from water ingress, provide protection from salt and sulfates in the ground and preserve the lifespan of the structure.

Faced with salt water exposure, high water tables and fluctuating temperatures, over 5,000 m<sup>2</sup> of PREPRUFE<sup>®</sup> waterproofing membrane proved to be the ideal solution to provide watertight protection from below the ground up.

PREPRUFE<sup>®</sup> is an advanced membrane system offering the safest and most reliable waterproofing option. Designed with synthetic adhesive layers, our patented ADVANCED BOND TECHNOLOGY™ enables concrete to aggressively adhere to PREPRUFE<sup>®</sup>, forming a unique intimate seal which prevents any water migration between the waterproofing and the structure, substantially reducing the risk of leaks.

PREPRUFE<sup>®</sup> protects a substructure from the harmful effects of water, vapour and gas better than the competition.

It can also be applied on wet concrete and is immediately trafficable after installation, which makes for fast and easy installation.

To complete the museum construction project's comprehensive waterproofing specification, we supplied BITUTHENE<sup>®</sup> LM asphalt-modified liquid membrane to provide a continuous waterproofing barrier system between the concrete slab and diaphragm walls.

## The Results

Preserving and protecting cultural buildings was essential for future generations, which was why the successful application of PREPRUFE<sup>®</sup> at MuCEM perfectly demonstrated the importance of specifying a geomembrane to fit the challenge. PREPRUFE<sup>®</sup> not only fit for purpose, it was also economically and environmentally sustainable and delivered waterproofing performance like no other system on the market.

Preventing water penetration and migration around the foundations, the application of PREPRUFE® will protect the museum design and its collections and expositions for many years to come.

Blue360<sup>SM</sup> Product Performance Advantage: Because every project, large or small, deserves the best level of protection.

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