

# New Estonia Museum Design Protects Cultural Artifacts

PREPRUFE® protects cultural artifacts with high performance waterproofing.

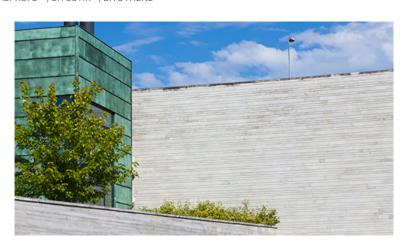
Project Estonia Art Museum
Investor Riigi Kinnisvara AS
Engineer Novarc Group AS

Architect Dan Dorell, Lina Ghotmeh, Tsuyoshi Tane

Contractor Fund Ehitus AS

 Applicator
 Langeproon Hüdroisolatsioonitööd OÜ

 GCP Solution
 PREPRUFE®, BITUSTIK™, BITUTHENE®





#### Project Profile

## Securing world-class artifacts

The new £40 million Estonia National Museum signals a new era in construction for the country, combining contemporary museum design elements and sustainability with cultural significance.

Designed by architects Dorell Ghotmeh Tane and built by Fund Ehitus OU, the 34,000m<sup>2</sup> building will play a key role in the regeneration of Tartu, Estonia's second largest city. The arts building will be home to more than one million artifacts, which celebrate the history, traditions, and culture of Estonia.

With the specification of PREPRUFE® waterproofing from GCP, the stylish and modern Estonia National Museum—as well as its priceless, culturally historical contents—will be protected from water ingress and damage for generations to come.

"With the specification of PREPRUFE® waterproofing from GCP, the stylish and modern Estonia National Museum—as well as its priceless, culturally historical contents—will be protected from water ingress and damage for generations to come."

#### Supporting critical waterproofing needs

Built on the site of a former Soviet military base, the new building's basement is subjected to 4–5 meters of hydrostatic water pressure, and has more than 30,000 penetration points from reinforcement bars and pipes.

To ensure the basement remains dry and keeps the historical artifacts at a consistent temperature and relative humidity, a proven waterproofing system was a prerequisite for the museum design.

"Built on the site of a former Soviet military base, the new building's basement is subjected to 4–5 meters of hydrostatic water pressure."

## Providing sustainable waterproofing

With long-term waterproofing performance, reliability, and success at challenging projects worldwide, PREPRUFE® waterproofing offered the ideal protection for the museum's 6-meter deep basement filled with arts and culturally significant artifacts. PREPRUFE® is an advanced membrane system, designed with synthetic adhesive layers and GCP's patented ADVANCED BOND TECHNOLOGY™.



This unique technology enables concrete to aggressively adhere to the PREPRUFE®membrane, forming a unique, intimate seal that prevents any water migration between the waterproofing and the structure, reducing the risk of leaks and improving sustainability.

Utilizing an advanced acrylic surface coating developed by GCP, the PREPRUFE®membrane also simplified the installation process by removing multiple layers and complicated detailing. Protective layers of concrete or boards were eliminated, reducing the depth of excavation and spoil and minimizing the number of materials to be sourced. This accelerated project completion.

GCP also supplied a range of complementary products and systems , including BITUTHENE®4000S self-adhesive HDPE waterproofing membrane and BITUTHENE®LM asphalt modified liquid membrane, to improve the museum design. BITUSTIK™ 4000 double-sided tape was also supplied to complete the project's comprehensive waterproofing specification.

"The PREPRUFE® membrane also simplified the installation process by removing multiple layers and complicated detailing."

#### gcpat.com | North America Customer Service: +1 (877) 423 6491

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Suite 400, Alpharetta, GA 30009, USA

GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6  $\,$ 

This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.