

Saadiyat Rotana Hotel & Resort Complex

Saadiyat Island, Abu Dhabi, United Arab Emirates (2017)

BACKGROUND

Rotana Group's majestic new ocean front hotel and resort complex will attract thousands of travelers from across the globe annually. The innovative design, with a large underground area (below grade) and over 700 piles into the ground, meant the project had extensive concrete waterproofing needs. The original specifications included two layers of EPDM membrane system which would require extensive labor and time to install considering the over 700 pile heads in the design. Additionally, the construction team was concerned about the corrosion risk because the project is beach front.

SOLUTION

Both the Contractor and the Engineer had previously worked with Kryton's concrete waterproofing products and know they provide permanent waterproofing and corrosion protection. The team chose to utilize Kryton products and added over 100 tons of Krystol Internal Membrane (KIM) to their concrete mix for all below grade areas and water features. To ensure a waterproof structure, the project team treated over 2800 m of construction joints and details using the Krystol Waterstop System, which not only provides full waterproofing protection, but also protects reinforcing steel at these joints against corrosion.

Kryton's waterproofing solutions contain Krystol technology, which when added to concrete, initiates a chemical reaction with water and un-hydrated cement particles to form insoluble needle-shaped crystals. These crystals fill the pores and capillaries in the concrete to block any water pathways in the concrete. This means the waterproofing is built right into the concrete reducing construction time and labor needs. The Kryton system also contributed credits for the project's Estidama Pearl Building Rating requirements. The rating system aims to promote the development of sustainable buildings in the Emirate of Abu Dhabi.

OWNER:

Rotana Group

DEVELOPER:

Tourism Development & Investment Company (TDIC)

ENGINEER:

Khatib & Alami

CONTRACTOR:

Ali & Sons Contracting / Kier Construction (ASK-JV)

DISTRIBUTOR:

Cristal Line Water Proofing and Trading

PROJECT MANAGEMENT:

EC Harris

READY-MIX:

Xtramix

PRODUCTS:

Learn more at kryton.com
 Krystol Internal Membrane™ (KIM®)
 Krystol® Waterstop System



More than 18,700 m³ of KIM concrete was poured in the foundation of the hotel.



Nearing the completion stage of the Saadiyat Rotana Hotel.