

Al Jassasiya South House

Jassasiya, Qatar (2016)

BACKGROUND

Sometimes lost in the vast construction explosion in the Middle East and UAE, Qatar is growing and building rapidly as world events loom close. The planned City of Lusail, enormous stadiums and great buildings are all pushing the limits of constructability. Speed and efficiency are two vital factors for developers, engineers, and contractors in Qatar.

In Jassasiya, Qatar the Al Jassasiya South House is a palace being built at the edges of the seashore, about 30 m (90 ft) from the water. The concrete structure of the building would be exposed to the water pressure of the ocean, putting the durability of the concrete at great risk. In order to ensure concrete durability remains intact, it needed to be protected by a waterproofing system that not only ensured a long service life but also save time and money for the project.

SOLUTION

The palace project team investigated the use of a traditional torch-applied bituminous membrane. However, it was found that it would have been complicated to install and would have consumed a lot of time considering the size of the project. The engineering consultant, Dorsch Qatar recommended the use of 4,500 m³ (160,000 ft³) Krystol Internal Membrane (KIM) treated concrete to waterproof the isolated footings, grade beam, column neck, and all water retaining structures. Not only does KIM provide completely watertight concrete structure, but also saves time, labor, and overall cost – three important aspects of construction in Qatar.

Further to KIM, Krystol Waterstop System (KWS) was used for the construction joints, which was another worry for the project team when considering the externally applied membrane. KIM and KWS provided the Al Jassasiya South House with a completely tanked foundation whilst saving the project time, labor and money.

ENGINEER:

Dorsch Qatar

CONTRACTOR:

Urbacon General Contractors

READY-MIX:

Al Wataniya Ready-mix

APPLICATOR:

Al Jaber Structural Protection CO.

DISTRIBUTOR:

Al Jaber Structural Protection CO.

PRODUCTS:

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Krystol Internal Membrane™ (KIM®)

Krystol® Waterstop System (KWS)



KIM concrete was used to waterproof the isolated footings, grade beam, column neck, and water retaining structures.



KWS was used to waterproof the construction joints, an area of great concern for the engineers.