

B+M+1 Showroom & Office Building

Doha, Qatar (2012)

BACKGROUND

The below grade aspects of construction can sometimes go overlooked, especially when considering the region you're building in. For instance, when you think of Doha, Qatar, you don't think concrete waterproofing is as important as it is. However, the fact is, many projects that are built below grade are deteriorating faster than anticipated because of the hydrostatic water pressure experienced underground.

Diwan Al Emara design house anticipated this reality when designing the B+M+1 Showroom & Office Building in Doha. The design team understood the impact the hydrostatic pressure would have on the below grade concrete, which was designed with isolated footing with a cover slab to be used as a basement parking having a water table above the footing slab. An innovative concrete waterproofing solution was required.

SOLUTION

Diwan Al Emara called Kryton Distributor, Al Jaber Structural Protection Co., the experts in concrete waterproofing for Qatar. Using a traditional torch applied bituminous membrane would have made for a complicated and time consuming application because of the size of the footing. Further, the risk of leaks would increase because of the various joints in the application of the membrane needed to provide a watertight structure. Al Jaber recommended and used 2,500 m³ (88,000 ft³) of Krystol Internal Membrane (KIM) treated concrete as the alternative solution for the isolated footings, grade beam, column neck, base slab, and retaining wall. KIM is not only simple to apply, but eliminates the need to use a costly externally applied membrane.

This solution allowed the project to save time, labor, and final costs. Krystol Waterstop System was used in conjunction with KIM, and Krystol Baricote was used to close the tie-holes of the retaining wall and water retaining structures for as the complete tanking system.



KIM's simple to use qualities allowed the project team to save time, labor, and money.



2,500 m³ of KIM treated concrete was used to waterproof underground.

ARCHITECT/ENGINEER:

Diwan Al Emara

CONTRACTOR:

Shannon Engineering Co.

READY-MIX:

FBA Ready-Mix

DISTRIBUTOR:

Al Jaber Structural Protection Co.

PRODUCTS:

Learn more at kryton.com

Krystol Internal Membrane™ (KIM®)

Krystol® Waterstop System

Krystol Baricote™