

# The Royal

Calgary, AB, Canada (2019)

## PRODUCTS USED:

**Kryston Internal Membrane™ (KIM®)** **Krytonite™ Swelling Waterstop**  
**Kryston Waterstop Treatment™**

### OWNER/DEVELOPER/CONTRACTOR:

Embassy Bosa

### ENGINEER:

Spratt Emanuel Engineering Ltd.

### READY-MIX SUPPLIER:

BURNCO Rock Products Ltd.

### DISTRIBUTOR:

Cascade Aqua-Tech Ltd.

## BACKGROUND

This 34-story apartment tower in Calgary's historic Mount Royal Village neighborhood is the size of a full city block and contains 223 suites. The project team for this extensive structure worked hard to ensure that it was both modern and luxurious while staying true to the surrounding neighborhood's aesthetic.

As part of that process, the team had to consider their concrete waterproofing needs. However, this was a relatively easy process, as the owner, developer, and contractor on the team, Embassy Bosa, had worked with Kryton's waterproofing solutions on previous projects. They knew these solutions offered superior performance, and based on that past performance, they specified Kryton solutions for all the underground parking and below grade areas of The Royal. They made this decision confidently, knowing that not only were these solutions high-quality, but that they were also able to provide a full, permanent waterproofing system, protecting the concrete as well as the construction joints for the life of the structure.

## SOLUTION

The team used three Kryton solutions in particular: KIM, the Krytonite Swelling Waterstop, and the Kryston Waterstop Treatment. With KIM, the team applied it to their structural shotcrete mix for the below grade walls. That lowered the permeability of the concrete integrally, removing the need for surface-applied waterproofing membranes. By stopping the transmission of water through concrete that way, KIM added durability and longevity to the concrete, protecting it from chemical attack and reinforcing steel corrosion. Moreover, this protection will remain for as long as The Royal remains because KIM is designed to withstand even high hydrostatic pressure and it grows increasingly effective over the life span of the structure it's in.



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To complete this waterproofing system, the team went on to apply the Krytonite Swelling Waterstop and the Kryston Waterstop Treatment to all the below grade construction joints. The Krytonite sealed the joints with swelling pressure, protecting them from possible water ingress. And the Kryston Waterstop Treatment, as a cementitious crystalline slurry, was applied to the horizontal and vertical construction joints to provide them with waterproofing protection and to protect the rebar within the concrete from corrosion.

All of which ensured that The Royal had a complete, permanent waterproofing system for the rest of its life span.

