

The Verve

Calgary, AB, Canada (2018)

PRODUCTS USED:

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

OWNER/DEVELOPER:

FRAM + Slokker

ARCHITECT:

Giannone Petricone Associates

CONTRACTOR:

Urban One Builders

READY-MIX SUPPLIER:

BURNCO Rock Products Ltd.

DISTRIBUTOR:

Cascade Aqua-Tech Ltd.

BACKGROUND

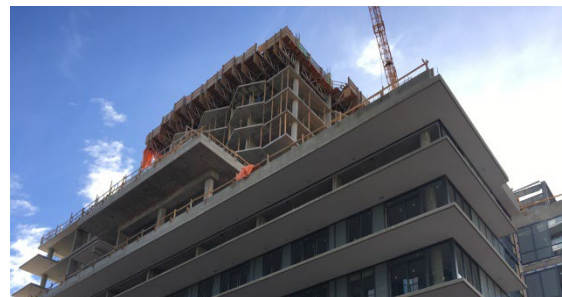
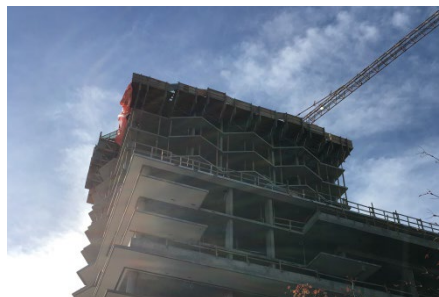
With interiors created by award-winning designer Cecconi Simone and the overall design managed by the architectural firm Giannone Petricone Associates, the Verve has been a beautiful addition to its surrounding urban neighborhood in Calgary, Alberta. More specifically, it offers residents in Calgary's East Village a 25-story tower right on the shore of Bow River with 288 designer suites and a number of luxurious features, such as a Zen garden, outdoor fire pit, and jacuzzi. The Verve also maintains space for retail areas, giving residents a balanced blend of shopping fun and residential relaxation.

For many, the Verve is the perfect residential space full of visual splendor and extra features not easily found elsewhere. However, the area it resides within is not without challenges. After all, the East Village is located in a flood zone, and it saw significant flooding during 2013.

That's why during the construction of the Verve, the construction team knew they'd need a high-quality waterproofing system to secure the tower's three levels of underground parking.

SOLUTION

The team thought Kryton's concrete admixture, KIM, could provide that high-quality waterproofing. And after a review of the admixture's performance and long-term benefits, they knew KIM was the optimal waterproofing solution compared to externally applied membranes. Unlike external membranes which take time to apply and are prone to getting punctured during the backfilling process, KIM offers an improved application process as it's added directly to the concrete mix to transform the concrete into its own waterproof barrier free of any puncturing concerns.



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Krytonite™ Swelling Waterstop**

The construction team got to experience that for themselves when they added KIM to their concrete mix. This mix was used as structural shotcrete to build the below grade parking foundation and walls.

Once in place and hardened, the concrete gained the ability to chemically react to the presence of water, creating insoluble needle-shaped crystals that fill the capillaries and micro-cracks in the concrete to block out water. Even under high hydrostatic pressure, this process would continue to protect the concrete from water penetration. And over the life span of the concrete, it would become increasingly effective. As a result, any moisture introduced to the concrete throughout its life span will initiate KIM's crystallization and self-sealing, ensuring the concrete has permanent waterproofing protection. That makes it a perfect solution for a structure in an area that is subject to increased water pressure from local flooding.

To enhance this waterproofing protection and complete their waterproofing system, the construction team also used Kryton's Krytol Waterstop Treatment and Krytonite Swelling Waterstop. Combined, the two products acted as a double waterproofing protection system on all the below grade construction joints. The treatment used the same waterproofing technology as KIM to protect the construction joints from water penetration and the rebar from corrosion. And the waterstop was added near the center of the construction joints to act as a permanently durable barrier that can swell in the presence of water to seal the construction joints and stop the water from getting near them.

With the below grade construction joints and the concrete fully protected from water penetration with Kryton's waterproofing system, the Verve has been able to remain a pleasant place for entertainment and household living.

