

Cole Harbour Place Ice Rink

Dartmouth, NS, Canada (2018)

PRODUCT USED:
Hard-Cem®

GENERAL CONTRACTOR:

Bird Construction Co.

CONCRETE PRODUCER:

Ocean Contractors Ltd.

CONCRETE FINISHER:

Precision Concrete

DISTRIBUTOR:

Arrow Construction Products Ltd.

BACKGROUND

Cole Harbour Place, the home of Sidney Crosby, is a state-of-the-art, multi-use facility located in Dartmouth, Nova Scotia. Built in 1988 with the intention of encouraging a healthy and athletic lifestyle, Cole Harbour Place has since become a focal point of the local community. The facility consists of an aquatics complex, squash courts, a fitness center, and two ice rinks.

Eventually, in 2018, the larger of the two ice rinks, which could seat 1,000 spectators, was due for a repair. The slabs for such rinks present a tough challenge to contractors, however. They have to be built to very tight flatness specifications. Any deviations to the flatness in the concrete will reflect on the surface, making it dangerous for skaters. Moreover, the concrete used has to be compatible with air-entrained concrete. As a result, Bird Construction Co., the general contracting company associated with Cole Harbour Place's particular ice rink, was in search of a concrete hardening solution that could be used in freeze-thaw conditions and would provide superior abrasion and erosion resistance to the rink's icy surface.

SOLUTION

Arrow Construction Products Ltd., Kryton's distributor in Nova Scotia, recommended that Bird Construction Co. use Hard-Cem, an integral hardening admixture, to harden the concrete beneath the ice slab. There'd be no concern about extra labor needed to apply it as Hard-Cem is added to the concrete mix at the time of batching. Once added, it provides resistance to wear from both abrasive and erosive forces. What's more, because it is integral to the concrete, Hard-Cem provides uniform, full-depth hardening to the entire surface. Hard-Cem also extends wear life up to two times and is the only concrete hardening admixture that works with air-entrained concrete.

With that in mind, Bird Construction Co. and their team chose to use a total of 300 m³ (482 ft²) of Hard-Cem-treated concrete for the slab below the rink's ice surface as well as the shoulder areas. By choosing Hard-Cem as their durability solution, the construction team and Cole Harbour Place will help save on maintenance costs for the rink while providing a safer, long-lasting functional rink to the local community for many years to come.

