

# HARD-CEM<sup>®</sup>

## INTEGRAL HARDENING ADMIXTURE FOR INCREASED ABRASION AND EROSION RESISTANCE OF CONCRETE



SMART CONCRETE<sup>®</sup>

## HARD-CEM<sup>®</sup>

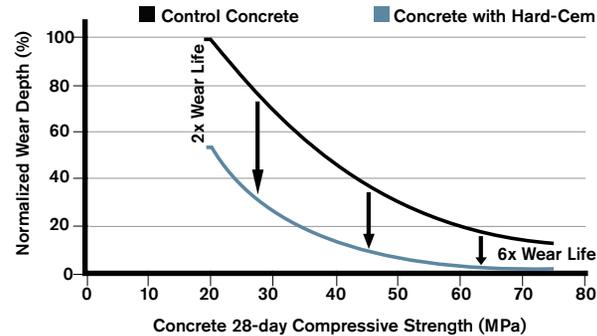
Hard-Cem is an Integral Hardening Admixture used to increase abrasion and erosion resistance of concrete.

Hard-Cem is added at time of batching to increase the service life of concrete by dramatically reducing wear from erosion and abrasion. It outperforms and overcomes deficiencies of labor intensive surface applied hardeners, and can be used to enhance durability of both air-entrained and non-air-entrained concretes. Since it is integral, Hard-Cem can be used to harden horizontal, vertical or inclined concrete and shotcrete surfaces.



## WHY HARD-CEM

- Extends concrete wearlife 2-6 times under harsh conditions



- Only hardener that can be used with air-entrained concrete\*
- Full-depth concrete hardening\*
- Lowers installed cost\*
- Expedites construction schedules\*
- Reduces maintenance costs and improves concrete sustainability
- Improves worksite safety and conditions (dust free)\*
- Improves quality control\*
- No side effects on concrete water demand, workability, set time, strength development or shrinkage
- Can be used in horizontal, vertical or inclined concrete

\*compared to surface applied (dry shake) hardeners

## APPLICATIONS



Hard-Cem can be used in any Ready Mix, Shotcrete or Precast concrete to improve abrasion and erosion resistance, and extend the wear life of the concrete. It is typically used in:

- Industrial
- Infrastructure
- Mining, Oil & Gas
- Agriculture
- Hydro
- Manufacturing

## HARD-CEM IN THE FIELD

VANCOUVER, BC, CANADA  
VANCOUVER CONVENTION CENTRE



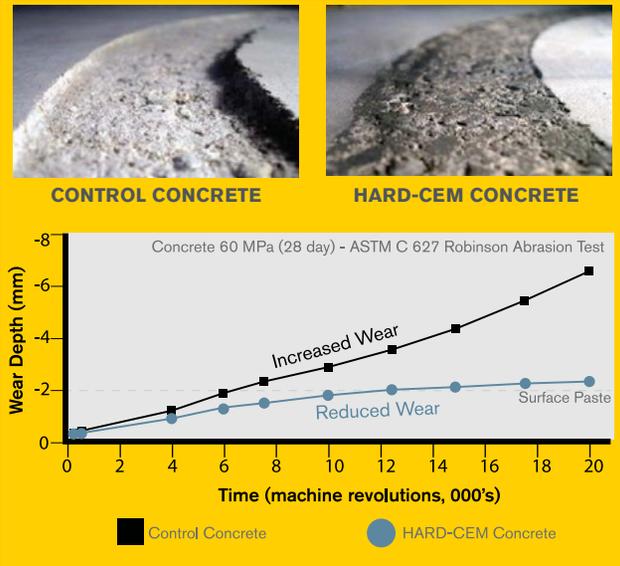
Hard-Cem delivers superior concrete hardness as well as abrasion resistance in over 21,000 m<sup>2</sup> (223,000 ft<sup>2</sup>) of high-traffic convention facility flooring. Adding Hard-Cem to the concrete saved significant time during the construction schedule and reduced overall installation costs.

## HOW IT WORKS

When added to concrete, Hard-Cem's proprietary technology increases the hardness of the concrete paste and reduces fine and coarse aggregate exposure that creates degradation to concrete surfaces. Since it is integral, it continues to offer surface wear resistance throughout its life.

By increasing the abrasive-erosive service life of concrete, maintenance costs are reduced and replacement of the concrete is substantially deferred.

## PROVEN PERFORMANCE



## WHITE RIVER, ON, CANADA WHITE RIVER HYDRO



Hydroelectric concrete structures require high erosion resistance to minimize concrete wear due to aggressive water and debris. Hard-Cem fights erosion in over 6,000 m<sup>3</sup> (212,000 ft<sup>3</sup>) of concrete structures extending the overall service life.

## WHY KRYTON

## THE MOST EFFECTIVE CONCRETE WATERPROOFING AND DURABILITY ENHANCING SOLUTIONS IN THE WORLD



Proven durability performance for over 14 years and 5.6 million m<sup>2</sup> (60 million ft<sup>2</sup>).



Well-defined, step-by-step installation process that ensures success.



Comprehensive support and consultation resources available to provide answers and guidance.



Assurance from the leading warranty in the industry.



Independently accredited proof of performance. Kryton works with industry, academic, and governmental bodies around the world to develop certification standards and testing methodologies.



Kryton headquarters are in Canada with 7 regional offices in China, India, Mexico, Singapore, UAE, USA and UK. Our solutions are sold by over 50 distributors worldwide. To find the Kryton distributor nearest you, visit: [www.kryton.com](http://www.kryton.com)



Hard-Cem won the **Most Innovative Product Award** at the World of Concrete.

Hard-Cem has been installed in over 5.6 million m<sup>2</sup> (60 million ft<sup>2</sup>) of concrete applications to date.



SMART CONCRETE®

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