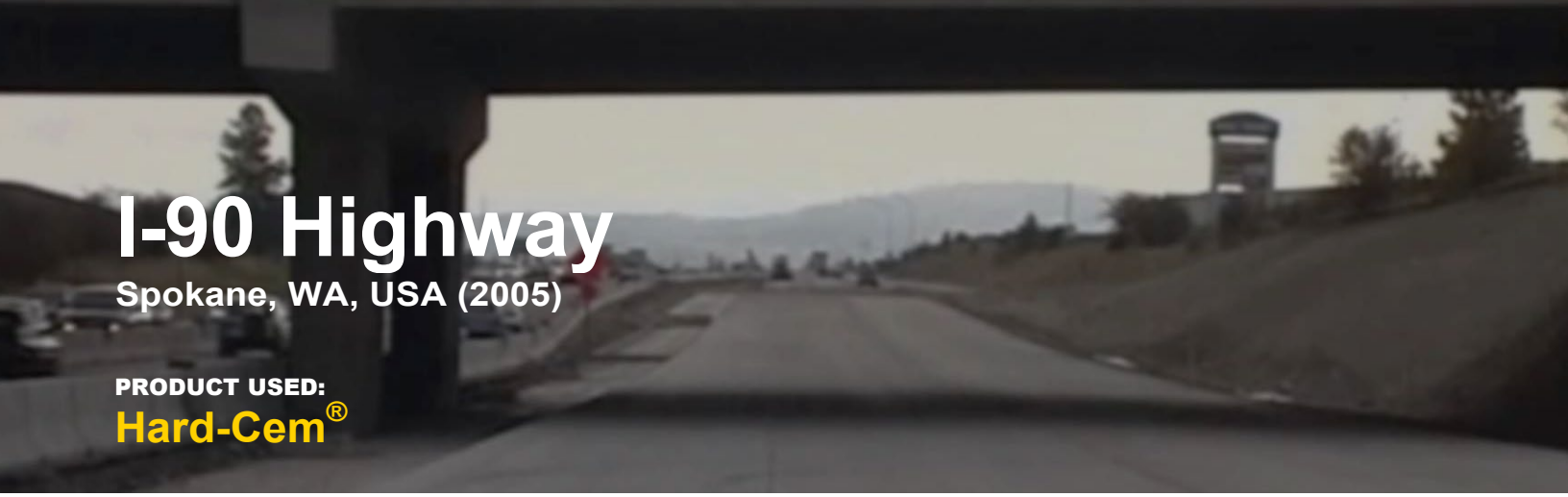

I-90 Highway

Spokane, WA, USA (2005)

PRODUCT USED:
Hard-Cem®

OWNER:	PROJECT MANAGER:	READY-MIX SUPPLIER:	DISTRIBUTOR:
Washington State Department of Transportation	Garco Construction	ACME Concrete Paving Inc.	Cementec Industries Inc.

BACKGROUND

The quality of roadway paving is critical for often used highways. When smooth, it can make a driving experience feel pleasant while also lowering potential road repair costs for authorities and vehicular repair costs for travelers. But after years and years of multiple travelers driving through that area, the roadway paving will inevitably erode away, making it rougher and diminishing its overall quality. That can lead to a less economically sound roadway as expensive repairs become more common, drivers slow down to avoid accidents, and the need for vehicular repairs increases.

That was the potential situation facing certain sections of the I-90 highway. To add to that, the I-90 often dealt with snowy and icy weather, which meant it received a high level of traffic with studded snow tires. As a result, it already had significant abrasion and rutting to deal with.

To prevent further deterioration and to ensure the I-90 highway lasted 50 years or so, the Washington State Department of Transportation (WSDOT) decided to test several concrete hardening solutions to see which one would best protect the highway.

SOLUTION

One of these chosen solutions for testing was Kryton's integral hardening admixture, Hard-Cem, and it was not hard to see why. As the only concrete hardening admixture on the market, Hard-Cem has the unique ability to increase a concrete mix's abrasion and erosion resistance and double its life span once directly added to the mix during batching. Knowing that, WSDOT realized they could receive quality concrete without having to budget in more time and money on getting expensive equipment and hiring extra labor they would have otherwise done for a surface-applied concrete hardening solution.

KRYTON®
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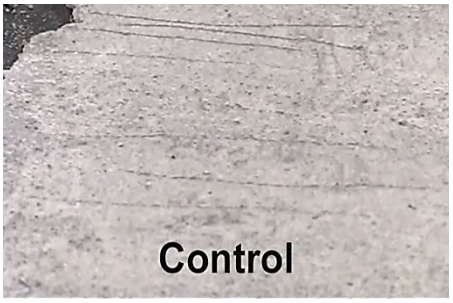

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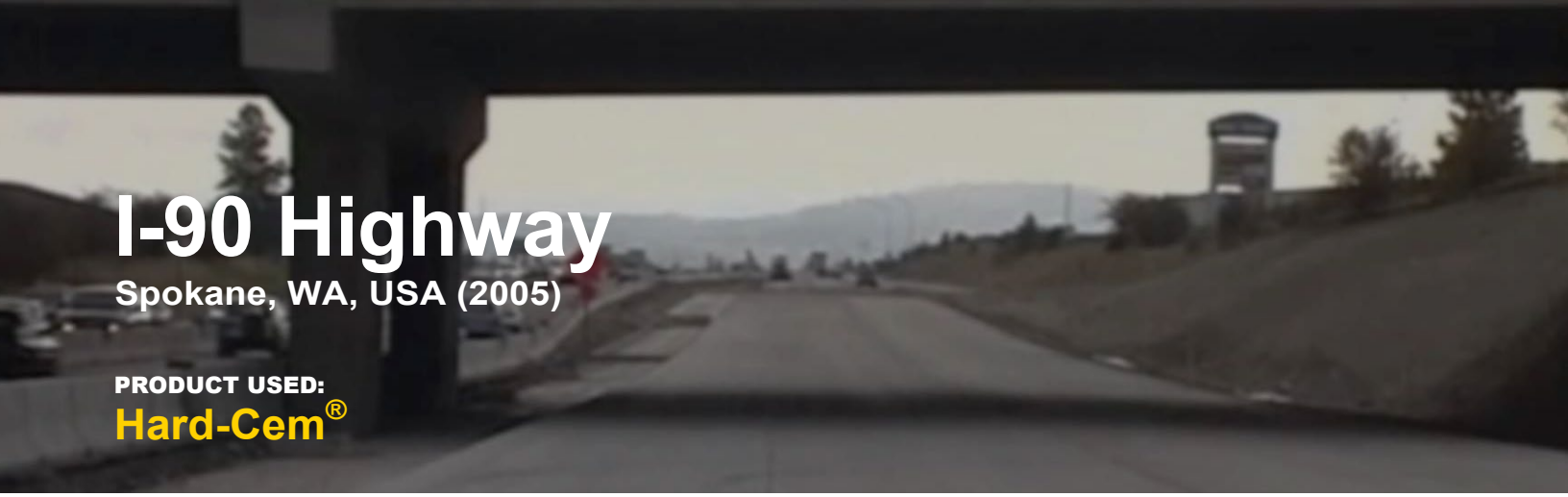


I-90 Highway

Spokane, WA, USA (2005)

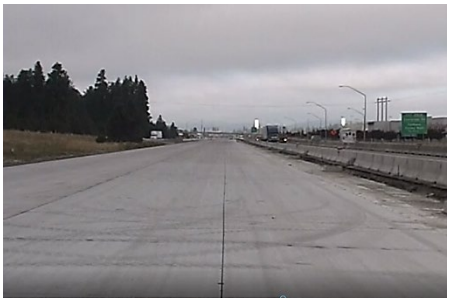
PRODUCT USED:
Hard-Cem®

Working with Kryton distributor Cementec Industries Inc., the department added 33.4 kg/m (67.4 lb/y) of Hard-Cem-treated concrete to a 600-foot single-lane test section. Much to the pleasure of the contractors handling this part of the process, the concrete had an ease of handling, texture, and finishing. And it was all swiftly poured and finished in less than three hours.

After letting the Hard-Cem-treated concrete settle and watching it perform compared to other concrete hardening solutions in different test sections for 12 months, the WSDOT had a number of discoveries to report. They noted that no concrete mixture alone would produce pavement capable of resisting traffic with a high percentage of studded snow tires. However, out of all the solutions tested, Hard-Cem was among the top. It offered a quality ride level that did not deteriorate over the testing time. This quality was supported by a high International Roughness Index average of 91.81, which the department considered to be a very good quality measure.

Combining this quality with a cost-effective and quick form of application, Hard-Cem proved that it could provide construction teams with reliable concrete without negatively impacting project timelines or budgets.

KRYTON®
SMART CONCRETE®



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