

Why is High Friction Surface Treatment part of the next wave of innovation in preventing roadway departure crashes?

Author: Gregg Freeman, *Business Development Director of Kwik Bond Polymers*

Email: gregg@kwikbondpolymers.com

Phone: (720) 626-6643

As a member of the *American Traffic Safety Services Association (ATSSA) High Friction Surfacing Council*, I feel as though we are riding the wave of a new, life-saving technology that is gaining strength at an exponential rate. The reality is that *High Friction Surface Treatment (HFST)* has been applied in roadways for over 35 years in Europe. In United States, HFST is being adopted because it has noticeably demonstrated the ability to save lives and reduce roadway departure (RwD) crashes. Currently, what's new now is that data and statistics are becoming available.

The *Federal Highway Administration (FHWA) Surface Enhancements at Horizontal Curves (SEAHC) program* may have initiated this momentum. The purpose of the *Federal Highway Administration (FHWA) field trials* under the SEAHC program is to determine how effective high friction surfacing is on reducing crashes and fatalities on horizontal curves. This data along with other recent studies have all had a positive contribution to the impact. Nine states in the U.S. have aggressive HFST programs in place already.

The champions of HFST are working diligently. The FHWA is promoting the benefits of HFST through its *Every Day Counts (EDC) 2*. The goal of EDC is to advance innovation into daily practice and reduce project delivery time. HFST happens to be one of the thirteen initiatives for EDC 2. "With friction values far exceeding conventional pavement friction, high-quality aggregate is applied to existing or potential high-crash areas to help motorists maintain better control in dry and wet driving conditions" states the FHWA.



High Friction Surface Treatment application 12 feet wide lane (Source: DBI Inc.)

At least 39 states in the U.S. have applied HFST on at least one project site to date. Kentucky has installed HFST on over 100 curves. Initial evaluation of the first 26 locations has demonstrated a **69% reduction in crashes per year** at those locations. Other states are seeing similar results. A recent study of the benefits of HFST relative to cost suggests a **cost to benefit ratio of 24:1.**

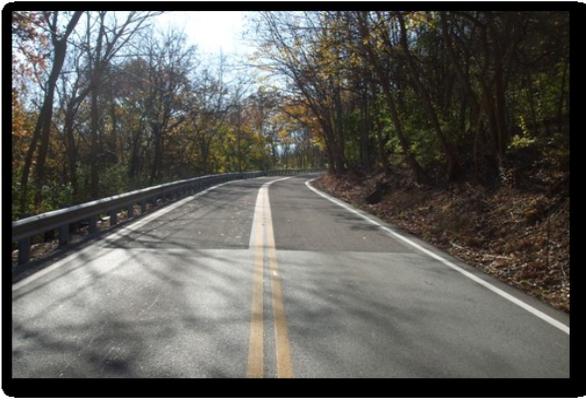
According to a report released by the *American Automobile Association (AAA)* in November 2011, **crashes involving injuries or fatalities cost Americans more than \$299 billion a year.**



HFST installed in Highway 17 in Santa Cruz, California (Source: Gregg Freeman)



Why is High Friction Surface Treatment part of the next wave of innovation in preventing roadway departure crashes? (CONT.)



Surface with Applied HFST (Source: DBI Inc)

Another strategy the *American Association of State Highway and Transportation Officials (AASHTO)* is working on is National Initiative for Highway Safety “*Towards Zero Deaths (TZD)*”. TZD will be a data-driven effort focusing on identifying and creating opportunities for changing American culture as it relates to highway safety. The *American Traffic Safety Services Association* is working on supporting these efforts in many ways. One way is to lobby legislation to eventually include HFST as a part of the TZD strategy. Safety strategies such as these have proven to be effective in reducing fatalities and serious injuries. There was a 24% reduction in fatalities from 2006 to 2011 as (HSIP) obligations and expenditures steadily increased in all states.



Installation of HFST with DBI's automated truck. (Source: DBI)

So where is this wave headed? Eventually every state, Puerto Rico and U.S. Virgin Island will end up with a Program to deploy HFST. Nationally, EDC 2 is being coordinated through the Division Office in every state and Puerto Rico. They are tasked with the introduction of EDC 2 to each state highway agency. The High Friction Surface Treatments implementation process is being done by national webinars, engineering presentations, project fact sheets, and industry co-information sharing presentations at state and federal meetings. We have been presenting this information in conjunction with FHWA Safety Engineers at a statewide level. Everyone wants to ride the “new wave.” Sometimes it’s just a matter of crunching the numbers before the enthusiasm turns in to action.

High Friction Surface Treatments as well others safety countermeasures in combination with the increase federal funding for the implementation of these strategies are saving lives.

As we all paddle out towards the horizon, let’s work together in the public policy to integrate these innovations in our roads to safe life. Let’s ride the wave together. Momentum is a powerful thing.

Wondershare™
KWIK BOND
POLYMERS

PDF Editor

