

STIC Spotlight Hot Pour Mastics: Latest Innovation to Seal Wider Cracks

Hot pour mastics, a new product used to repair wider and deeper pavement cracks and prevent potholes from forming, was showcased during a demonstration in July hosted by the State Transportation Innovation Council (STIC). The demonstration, which featured four vendors, is the latest example of how STIC, a partnership among PennDOT, the Federal Highway Administration (FHWA), and other public- and private-sector partners, continuously markets innovations to transportation stakeholders.

Preventing Potholes

Hot pour mastics, the next step after crack sealing, is used for wider and deeper cracks, says Stacey Cleary, executive director of the Pennsylvania Association of Asphalt Material Applicators, who notes that many states have adopted the use of the material.

"This material is designed to fill holes two inches or bigger and go deeper than routine crack sealing," she says. "It helps seal cracks and prevent water from getting in."

This sort of maintenance activity helps head off pothole formation, Cleary says, and can be used to smooth out joints between bridge decks and adjacent pavements.

"While it is not familiar to PennDOT, we know that it works," she says.

One of the benefits of the new material is that it stays

flexible even at lower temperatures so long-lasting fixes can be completed during winter and spring. In addition to providing an improved ride for motorists, the material helps to protect and preserve pavement surfaces.

"It is a preservation technology," Cleary says.

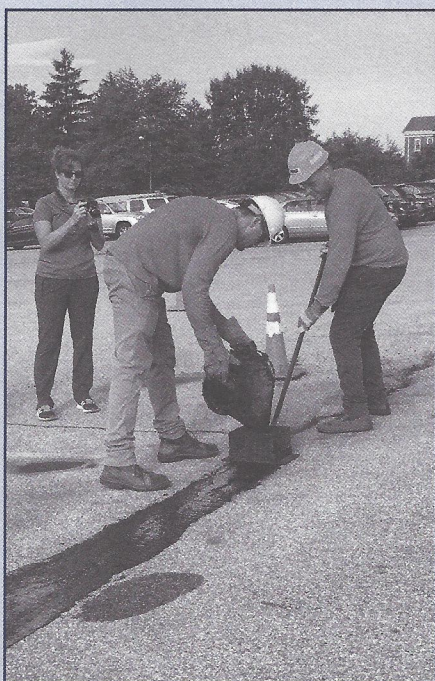
Municipal Reaction

Four vendors demonstrated their hot pour mastics products for the municipal officials attending the showcase, as well as representatives of PennDOT, the Pennsylvania Turnpike Commission, the Federal Highway Administration, and STIC. In addition to Crafcro, which already has approval and is listed in PennDOT's Bulletin 15, the other vendors were Fibrecrete Preservation Technologies of North Carolina, Right/Pointe LLC of Pennsylvania, and Maxwell Products of Utah.

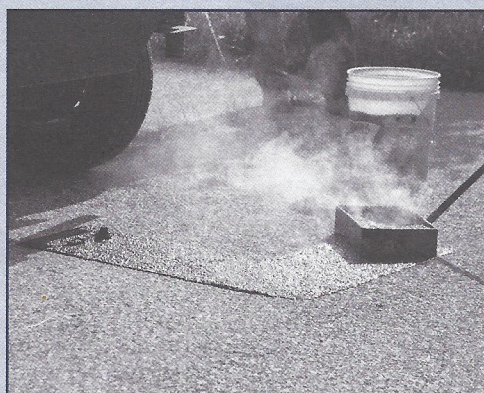
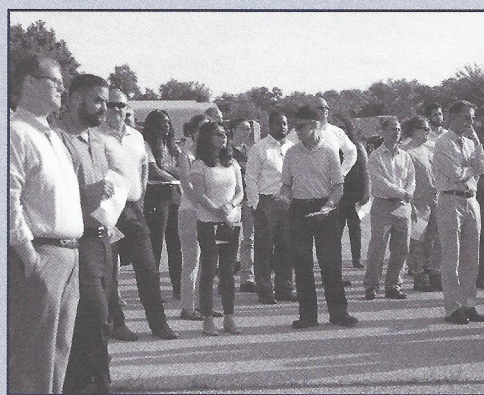
The municipal officials who came to the demonstration hoped to learn more about the products and their benefits. Marc Woerner, manager of West Manheim Township in York County, says he is always looking for cost-effective ways to improve roads. He applauded PennDOT for providing the opportunity for municipalities to come out and see the latest innovations.

"We have about 8,500 residents in the southwest corner

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Vendors show the benefits of hot pour mastics at a STIC-sponsored demonstration in a parking lot near the PennDOT Materials Testing Laboratory in Harrisburg.



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of York County," he says. "As township manager, I am responsible for bringing recommendations to the board, so they can make decisions."

While the costs of building and maintaining a local road network continue to grow, Woerner notes that maintenance is still cheaper than total road reconstruction.

"If we can find a product here that will match our needs to maintenance, that's a large improvement and will hopefully cut our costs in the long run," he says.

Harrisburg City councilmember Dave Madsen, who is also chair of the council's Community and Economic Development Committee, attended the session to "look and learn."

"We have a lot of potholes and cracks," he says. "It's a major concern."

He describes the dilemma that Harrisburg faces as host to the state capitol complex. While the city's population doubles during a workday because of the capitol, half of the property in the city is owned by the state government and not taxable. At the same time, the city has a 30% poverty rate.

With the pressure that commuters put on the city's infrastructure, Madsen is particularly interested in pursuing a partnership with PennDOT to "explore new products and technology as a cost-effective way to fix and improve roads, prolong their usable life, and not put the burden of preventable roadway reconstruction projects on taxpayers."

The demonstrations for the hot pour mastics impressed him.

"It was beneficial," he says. "I'm excited to further explore these products and their potential use in Harrisburg."

Taking it Statewide

PennDOT Deputy Secretary for Highway Administration George McAuley is looking forward to seeing this latest

STIC innovation deployed throughout the state.

"We brought it to Pennsylvania through the State Transportation Innovation Council," he says.

While the hot pour mastics product that Crafcro manufactures has been approved for use in the state, applications from the other vendors are still under review. The STIC Maintenance Technical Advisory Group is working to secure the required approvals by the end of the year, says Matt Briggs, chief of PennDOT's New Products and Innovations Section, noting the challenge has been to identify the specifications for the materials.

PennDOT District 5 Executive Mike Rebert, who represents the region around Allentown, believes that the new materials could be used to deal with a tough statewide issue — longitudinal cracks on expressways.

"This is something we have struggled with for years," he says.

At a STIC meeting immediately following the demonstration, McAuley applauded the practical benefits of the demonstration.

"It was great to not only think about new products, but to see how they are deployed," he says. He suggested that PennDOT LTAP provide training about hot pour mastics and their use to local officials.

"It is critical to understand what the products will do so we don't use them in the wrong place," he says.

More information on the Pennsylvania STIC can be found at penndot.gov/STIC.



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She also states that during these networking opportunities, they might be able to meet those in charge of public and private development projects in hopes of speeding up processes that sometimes take years.

Watch the news video about this story at www.brctv13.com/news/local-news/23918-pennndot-meets-with-three-chambers-of-commerce-to-talk-construction-timing.

** NOTE: This article was lightly edited for clarity and style.*

PennDOT Connects is an initiative launched by the agency in 2017 to involve municipalities early in the transportation planning process and improve transportation systems statewide. The program encourages PennDOT district personnel to work with regional planning partners and communities to integrate land use, development, and transportation more effectively into local projects. PennDOT Connects Municipal Support offers free assistance and technical expertise to municipalities. Learn more at paconnects.org.