

## MN Roads Test Track Reflective Cracking Test with ACE XP

*MNDOT and NCAT teamed up to test the durability and toughness of asphalt reinforced with ACE XP Polymer Fibers™ to monitor how it stands up to the frigid Minnesota winters.*

**LOCATION:**

Minneapolis, MN

**DETAILS:**

Reflective cracking test

**PRODUCT:**

ACE XP Polymer Fiber™

**DATE:**

July 21, 2022

**TEAM:**

Mike Vrtis, Research Project Engineer  
MNDOT



### The Challenge

ACE XP Polymer Fiber® underwent a rigorous test of strength and durability at the National Center for Asphalt Technology (NCAT) test track in Opelika, AL, in 2021. In 2022, MNDOT and NCAT are applying the same rigors to asphalt reinforced with ACE XP Polymer Fiber in a cold climate. In addition to testing the longer-life benefits of an ACE XP-reinforced asphalt pavement, the installation provided an opportunity to showcase Surface Tech's best-in-class services and dosing-at-plant equipment.

### The Solution

The one-day job placed 200 tons of HMA reinforced with 38mm ACE XP Polymer Fibers in compliance with JMF, DOT, test track and plant requirements for mixing. A Surface Tech support team provided all the work up and consultation to meet the test track logistics. The team also provided all product and dosing services the day of installation. Both MnROAD and NCAT teams were also on site gathering samples and assisting with testing.

Surface Tech offers EPD-certified polymer fiber solutions for the toughest pavement challenges, including overlays, interlayers, and high RAP content pavements.

ACE XP Polymer fibers™ from Surface Tech measure only 19mm or 38mm long, but they pack plenty of power. Only 3.4 ounces per U.S. ton, or 106 grams per metric tonne, is all it takes to stand up to ruts and cracks and reduce pavement maintenance costs.

### ABOUT NCAT:

NCAT is a partnership between the National Asphalt Pavement Association (NAPA) and Auburn University, and since its inception in 1986, it has gained international recognition for stellar research on asphalt pavements. Learn more about MnRoad.



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*Ease of dosing, plus the high level of on-site support from the Surface Tech team, made the install go smoothly.*

Surface Tech was very easy to work with during the MN Roads Additives Group Test Section mix production. They were prompt, professional, and their program was very easy to incorporate into our plant operations. Production went smoothly, and the mix looked great! I would recommend working with Surface Tech and ACE XP Polymer Fiber to any asphalt company doing aramid reinforced mix.

- Brad Paul, Tiller Corp.,  
a division of Martin Marietta

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### The Surface Tech Advantage

Surface Tech is committed to developing the most advanced reinforcement solutions for asphalt, not only adding strength and durability, but improving sustainability. Our innovative processes, technologies and products make asphalt pavements better, stronger and longer-lasting. Extensive research and development, laboratory testing and field trials have proven the Surface Tech advantage. We're paving the way to a sustainable future.



*The MNDOT Research Facility has partnered with NCAT to advance pavement engineering.*



*The Surface Tech QA/QC team guided the dosing process utilizing their proprietary equipment that guarantees accuracy.*

