

Aramid Reinforced Asphalt Pavement Solutions

"Driving Down the Ownership Cost of Asphalt Pavements"



ACE XP Polymer Fiber™ is a proven technology that increases the strength, crack resistance, rut resistance, fatigue life, toughness, and service life of any Asphalt Pavement. Use ACE XP in overlay maintenance and new full depth construction alike.



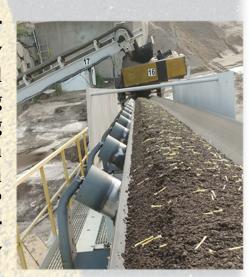


ARMI™ (Aramid Reinforced Mix Interlayer) is a 1" thick aramid fiber reinforced asphalt Reflective Crack Relief Interlayer (RCRI) that is plant made and paver laid which improves the cracking resistance of standard asphalt mixes by 7 to 10 times reducing expensive maintenance over the life of the pavement.





REARM HR™ is an aramid fiber reinforced High RAP technology that allows for improved sustainability while delivering improved Rutting and Cracking performance. By combining both a "bio-oil" to modify the virgin binder and activate the RAP binder along with Aramid Fiber for reinforcement, this technology can allow 50% + RAP Mixes.



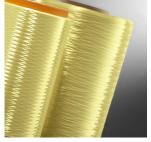


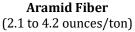
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ACE XP Polymer Fiber™ is a true achievement in additive technology to enhance asphalt concrete performance.

ACE XP Polymer Fiber™ extends pavement service life by dramatically improving the dynamic modulus of the asphalt layer and increasing the asphalt's resistance to cracking and rutting (distresses that may cause premature failure). To create ACE XP Polymer Fiber™, high-strength man-made "aromatic polyamide" or Aramid Fibers are bundled and coated with Sasobit® wax to create an asphalt concrete additive that is simple to mix with any WMA or HMA in through a drum and or batch asphalt operation. The 3-dimensional reinforcement throughout the asphalt layer increases the asphalt's resistance to cracking, rutting, and fatigue while providing improved ESAL (Equivalent Single Axel Load) capacity.







Sasobit® Wax (1.3 to 2.6 ounces/ton)



ACE XP Polymer FiberTM (3.4 to 6.8 ounces/ton)

ACE XP Polymer Fiber™ is engineered for performance.

Aramid Fibers are used extensively in many industries and applications including ballistic protection, heat & cut protection, automotive, ropes & cables, conveyor belts, etc. However, it takes a special fiber to withstand the extreme production temperatures of asphalt concrete without changes occurring to the reinforcement properties of the fiber. That is why ACE XP Polymer Fiber $^{\text{IM}}$ uses aramid fibers exclusively. Aramid is a unique man-made, high-strength polymer fiber boasting high tensile strengths over 400,000 psi (5 x steel), a superior stress/strain relationship, and decomposition temperatures of 932°F (well above asphalt mixing temperatures of 400°F). Both $^{3}4$ " long and 1.5" long fiber lengths are available for superior long-term performance.



