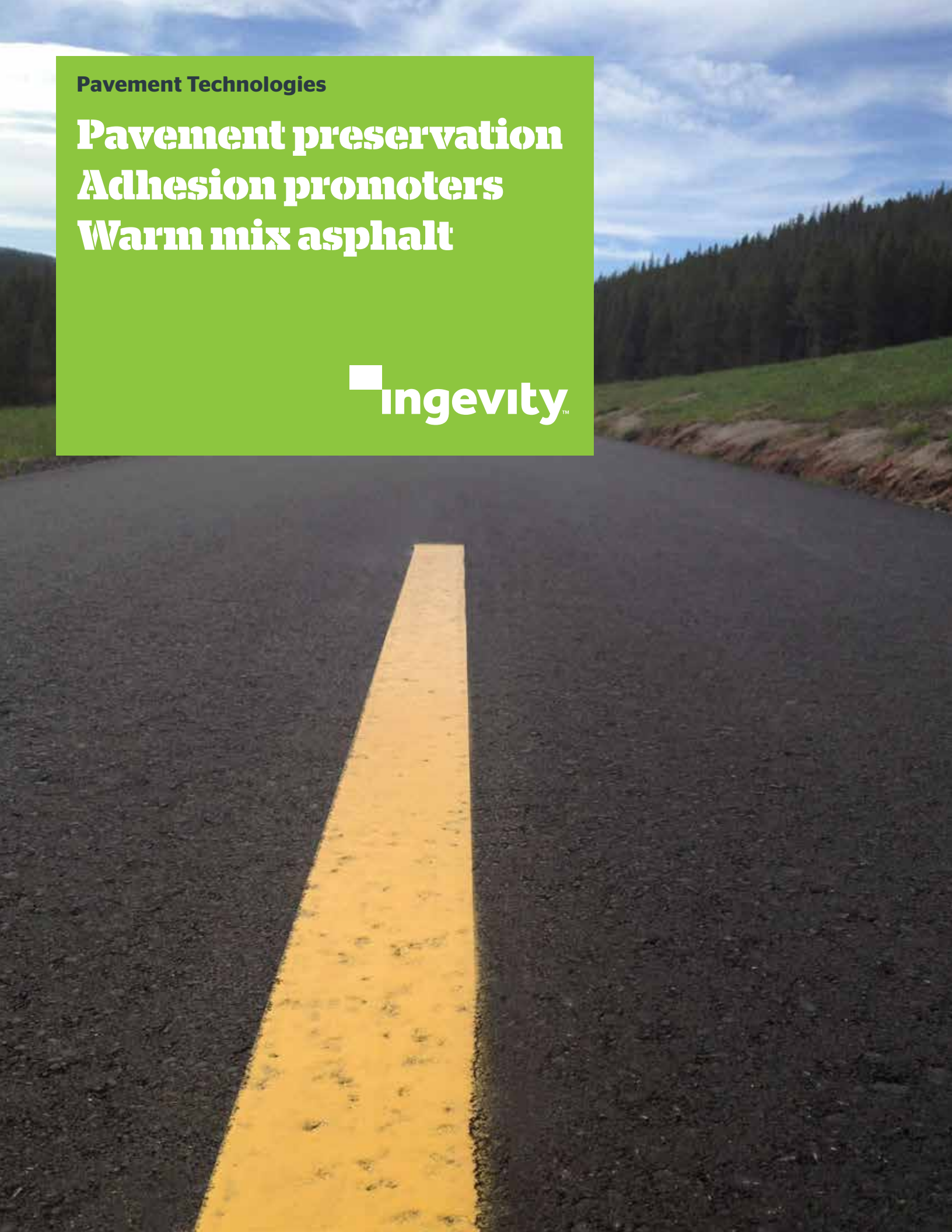


Pavement Technologies

**Pavement preservation
Adhesion promoters
Warm mix asphalt**

 **ingevity™**



Pushing the bounds

Ingevity focuses on delivering custom solutions to your toughest problems. Our technical team will work closely with you using your materials to help you make quality, high performing products to grow your business.

Specializing in customized solutions and support for a full range of asphalt paving demands, Ingevity developed Evotherm, a revolutionary warm mix additive, as an alternative to traditional hot mix asphalt. Evotherm now leads the industry in delivering proven warm mix asphalt performance at the lowest production temperatures.

Pavement preservation

The unique formulations of our pavement preservation products allow customers to work with asphalt paving technologies that are water-based rather than solvent-based. These alternative paving technologies present advantages on several fronts, including significant cost and energy savings associated with the elimination of traditional asphalt heating, mixing and transportation demands. Ingevity's distinctive cold mix recycling technologies allow paving contractors to repave damaged roadways with existing asphalt materials, providing an environmentally friendly alternative to standard overlays.

Cationic emulsifiers

The Indulin® product line offers cationic emulsifiers to perform in a full range of end uses. The easy-to-handle liquid CRS emulsifiers and process-friendly CSS emulsifiers provide excellent adhesion and give reliable performance in demanding emulsion formulations and application conditions. Our CQS product line provides industry-leading performance in micro surfacing and slurry surfacing applications with difficult materials and in demanding environmental conditions.

End Uses: tack coat, chip seal, micro surfacing, base stabilization, cold in-place recycling

Anionic emulsifiers

We offer a full range of anionic emulsifiers for use in both asphalt emulsion pavement construction and maintenance applications as well as demanding soil stabilization and remediation, industrial, and waterproofing applications.

End Uses: industrial coating, tack coat, chip seal

Specialty additives

Our additives find a wide variety of uses. Emulsion stabilizers are designed to improve coating of mixes or to improve emulsion storage stability. Emulsification aides decrease emulsion particle size and speed the cohesion development of emulsion based pavements. Some products soften binders without the use of flammable and high VOC solvents while others are designed for difficult aggregate and asphalt sources.

End Uses: stabilizers, micro surfacing systems, emulsification of low-quality asphalt

Adhesion promoters

Cold mix designs

Pave® adhesion promoters are formulated for use in asphalt cements, cutback asphalts, and asphalt emulsions. Providing both wetting and bonding aid functionality, they can be used with either wet or dry aggregate for all types of asphalt and cold patch mixes, allowing you to work with the most demanding materials and application conditions.

Hot mix applications

Morlife® and Pave Bond® adhesion promoters are formulated to improve the bond between the asphalt and the aggregate in hot mix asphalt pavements. These products lead to asphalt mixes with fewer water sensitivity issues and extended pavement life.

Warm mix asphalt technology

Ingevity's Evotherm warm mix asphalt (WMA) technology is the industry-leading sustainable paving solution that can be used in any traditional hot mix asphalt (HMA) application. Evotherm's unique chemistry allows asphalt application at a temperature that is 60–90°F lower than HMA. Over 200,000 miles have been placed worldwide with our proven technology, providing excellent performance in all types of conditions.

Performance benefits

- reduces manufacturing temperatures by 60°F compared to HMA
- allows excellent compaction at temperatures as low as 150°F
- extends paving season in cold weather conditions
- improves asphalt pavement lifecycle
- lengthens haul distances
- speeds road construction
- improves adhesion properties

Environmental benefits

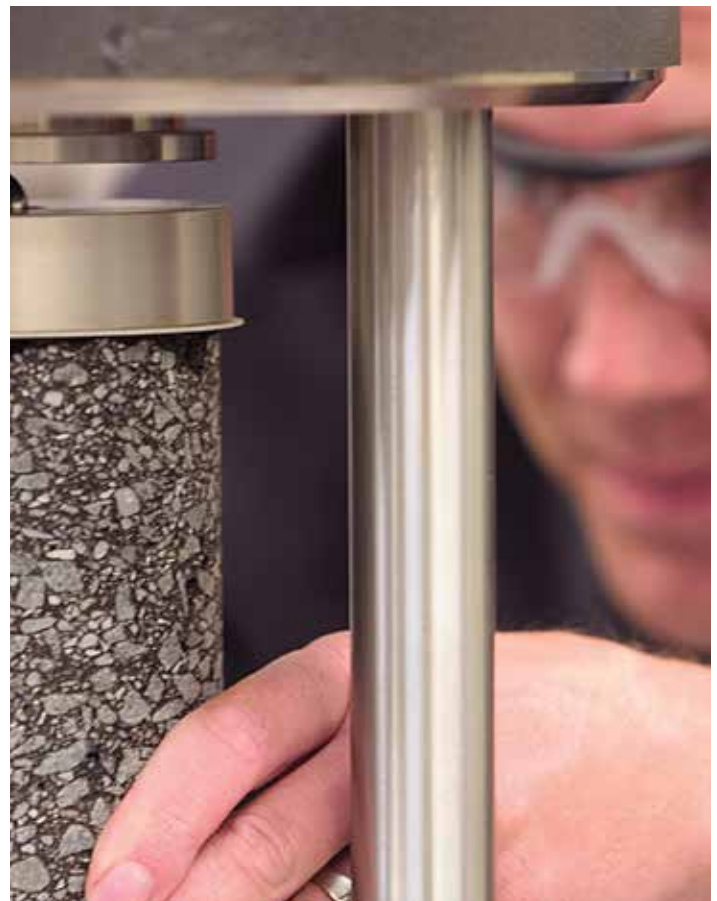
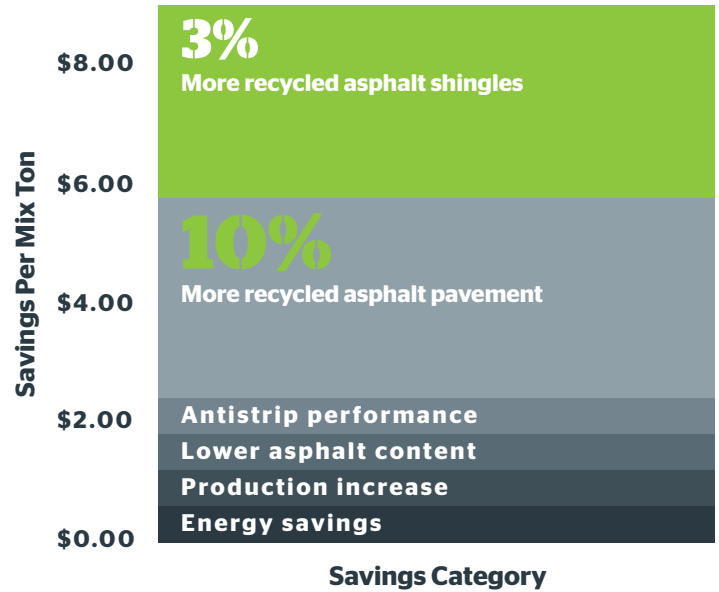
- reduces CO2 and emissions of greenhouse gases up to 50%
- saves up to 30% of fuel costs
- lowers jobsite emissions

Paving applications

- superpave mix designs
- recycled asphalt pavement (RAP)
- recycled asphalt shingles (RAS)
- porous pavements
- open graded friction courses (OGFC)
- stone matrix asphalts (SMA)
- polymer modified asphalts (PMA)
- ground tire rubber modified
- asphalts (GTR)

EVO THERM[®]
WARM MIX ASPHALT TECHNOLOGY

Evotherm delivers significant savings per mix ton. How can Evotherm help you save money?



Pavement Technologies

Technical Center

Ingevity
5255 Virginia Avenue
North Charleston, SC 29406
843 740 2300

Customer Service

800 782 6323

Manufacturing Locations

Ingevity,
Charleston, SC

Ingevity,
DeRidder, LA

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