

Evotherm Warm Mix Asphalt Technology

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What is WMA?

Asphalt mix that includes a technology which improves the production and placement of conventional asphalt mix at significantly lower temperatures.

30° to 100°F



WMA: Components of Value

Energy Savings

Lower emissions

Increased production

Decreased plant wear

Eliminate Anti-Strip

Lower AC content

Increased RAP, RAS

Crumb Rubber

Longer hauls

Reduced thermal segregation

Cool weather paving

Reduced worker fatigue

Improved compaction

Quality Incentives

Fiber Removal

What applies to YOU?



Evotherm

What is it?

Waterless, chemical WMA technology

- **Blended directly with liquid asphalt at mix plant or asphalt terminal**

Specifically developed for use in asphalt applications

- **Heat stable**
- **High flash point**
- **Low odor**
- **Easily metered**
- **Works with any grade of liquid asphalt**

Combination of specialty surfactants



What does Evotherm do to liquid asphalt?

Surface Tension

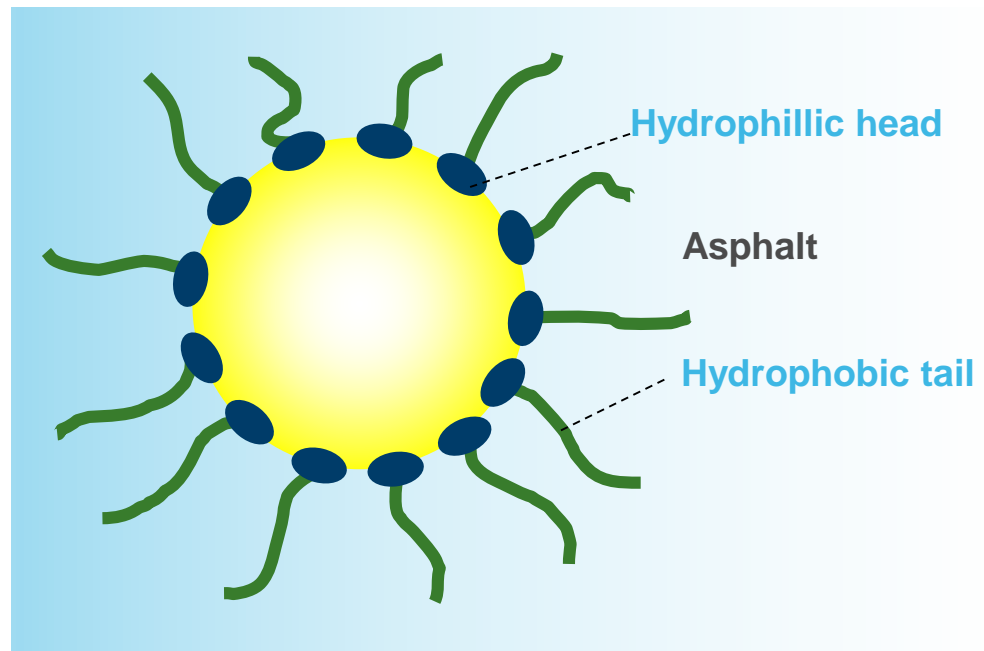
- Property of a liquid that allows it to resist an external force
- Temperature dependent
- Surfactants reduce surface tension of liquids



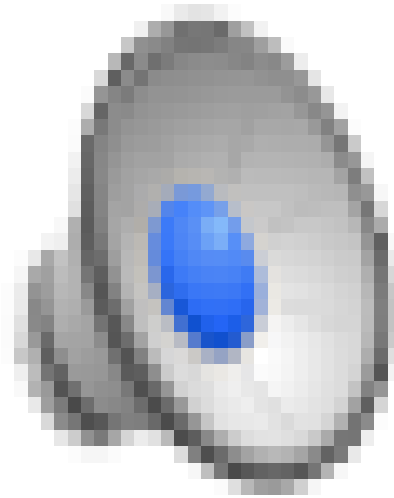
“Oil and water don’t mix.”

Surfactant molecules in Evotherm promote adhesion

- Hydrophilic head bonds to aggregate
- Hydrophobic tail bonds to asphalt
- Causes the formation of micelles



The “Magic” Drop



Measurable Effects and Benefits.

By modifying properties of liquid asphalt, Evotherm's unique chemistry delivers the key components of warm mix asphalt to contractors, road owners, and the driving public.



Evotherm Difference

Easy to Use

- Any mix plant
- No equipment to purchase or maintain
- Drop-in laboratory evaluations

Lowest Temperatures

Proven Performance



Evotherm Difference

Easy to Use

Lowest Temperatures

- Reduced thermal segregation
- Lower emissions
- Reduced fuel consumption
- Long hauls
- Extended season



Proven Performance



Evotherm Difference

Easy to Use

Lowest Temperatures

Proven Performance

- **Improved Compaction**
- **Increased RAP Content**
- **Longer binder life**





EVOTHERM

WARM MIX ASPHALT TECHNOLOGY

Easy to Use, Lowest Temperatures, Proven Performance

MWV

