

Update: Nebraska's Asphalt Mixes and Specifications

Presented by

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Topics of Discussion



Updated Superpave Mixes



Leveling Courses

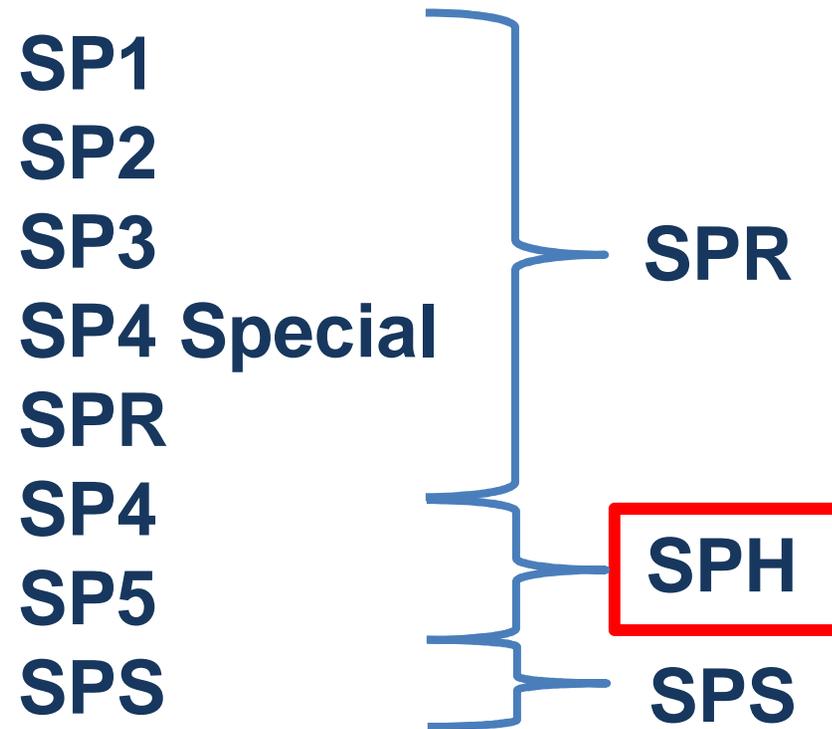


Warm Mix Asphalt



Waterproof Bridge Membranes

Update of Superpave Mixes



SPR

- Replaces SP4 Special and most SP4 designs
- High Recycle Mix (Up to 50% RAP)
- Been in use for 12 years (SPL)
- High strength modulus for increased structural value and rut resistance
- Allows for improved in-place density, especially at joints

SPH



- SPH - Heavy truck applications
 - Interstate, Expressways, and large volume urban corridors
- Replaces SP-5 and high traffic SP-4
- Utilizing 70-34 and 64-34 binder

In December 2011 Letting, along with updated Superpave Spec.

SPS

- Shoulder Mix
- Very Economical
- Designed to allow high RAP (50% max)
- Wider gradation band
- 52-34 Grade Binder

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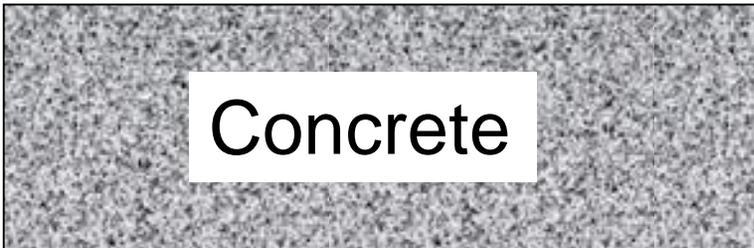
Warm Mix Asphalt



Waterproof Bridge Membranes

LC and RLC

Used on:



Heavily Patched Asphalt
or Composite Pavements

- Used as Leveling Course
- Very Thin Applications – 1” or less
- LC – High Binder, Low Voids
- RLC – Average Binder, Higher Voids



Without LC

**Overlay of Bare Concrete
Pavement without LC (Bottom lift)**

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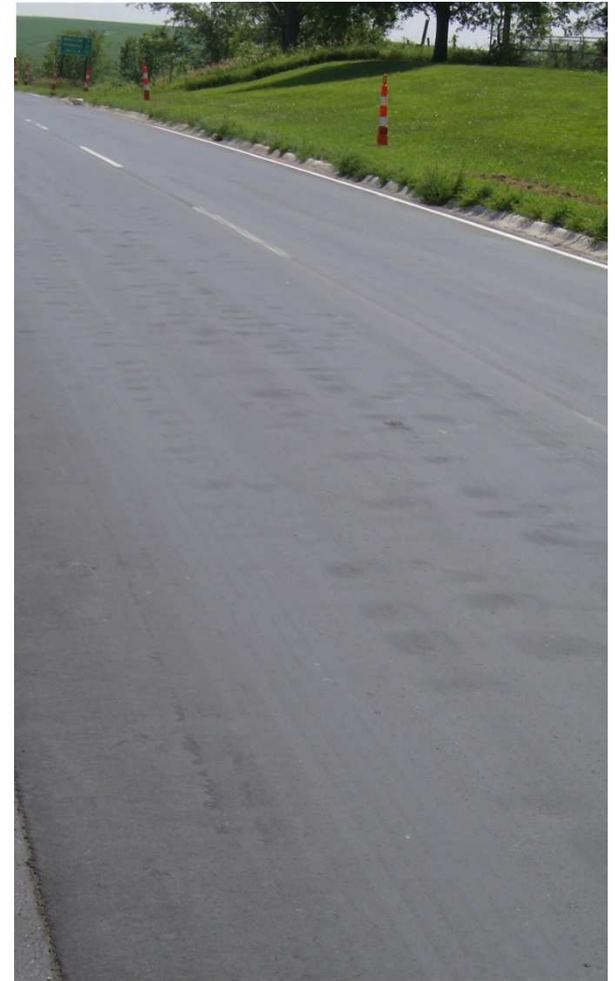
With LC

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**Overlay of Heavily Patched
Pavement with LC (Bottom Lift)**

LC “Blistering”

- Trapped Moisture in Substrate
- Occurs during High Temperatures
- Solutions:
 - Phase Operations
 - Run Roller on Before Paving



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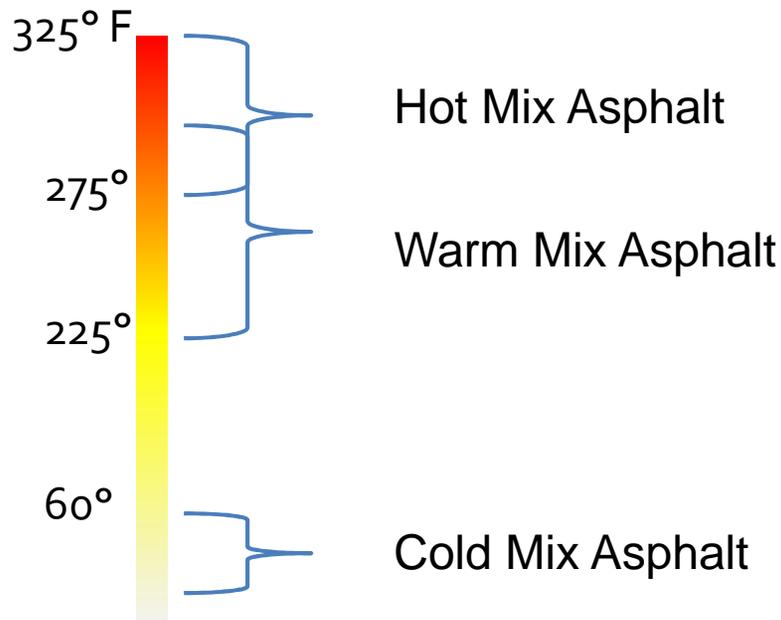


Warm Mix Asphalt



Waterproof Bridge Membranes

What is WMA?



- Hot Mix Asphalt designs that are modified to be produced, placed and compacted at 20-100F less than typical HMA.

WMA Product List

- **Organic Wax**

- Sasobit
- Asphaltan B

- **Chemical Additives**

- Evotherm
- Rediset WMX
- Cecabase RT
- QauliTherm
- Thiopave

- **Zeolite**

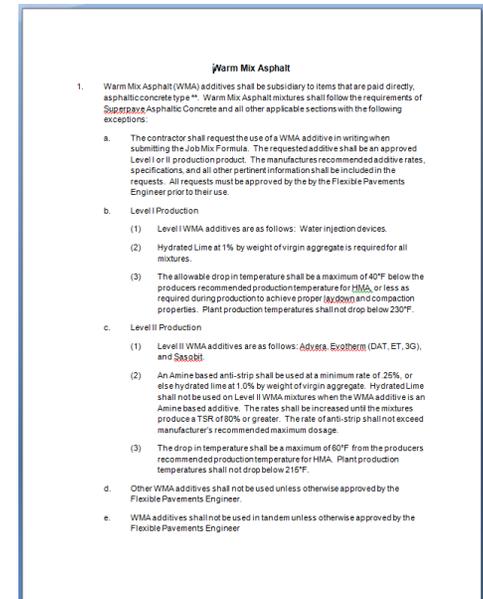
- Advera
- Aspha-Min
- Terax WMA System

- **Water Injection Systems**

- Double Barrel Green
- Tri-Mix
- AquaBlack
- Ultrafoam GX
- WAM-Foam
- Low Emission Asphalt
- Eco-Foam II
- Meeker
- Terex WMA System
- Accushear
- WAM Foam

WMA Specification

- **WMA Provision Highlights:**
 - On all jobs starting in March 2012 Letting
 - Must request WMA at mix design
 - Control Strip required (600 Ton)



WMA Specification

- Level 1: Water Injection Devices
 - Foaming Additives
 - Minimal Water



WMA Specification

- Level 2: Advera, Evotherm, Sasobit
 - Chemical Additives
 - Usually Terminal Blended
 - Can be Blended at Plant



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Warm Mix Asphalt



Waterproof Bridge Membranes

A photograph of a highway construction site. In the foreground, a worker in a yellow safety vest and cap is seen from the back, holding a blue strap. In the middle ground, several other workers in high-visibility vests and hard hats are working on the road surface. A white pickup truck and a dark SUV are parked on the road. The background shows a clear blue sky and rolling green hills.

New Specification (May 2012):

- Contractor Notify PM & QA Manager (No Manufacturer Rep)



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- New Cleaning Requirements



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- Contractor Notify PM & QA Manager (No Manufacturer Rep)
- Prescriptive Spec.
(Not Manufacturer Spec.)
- New Cleaning Requirements
- No Direct Dumping of Asphalt onto Membrane

Thank You!

