

SURFACE PREPARATION PRIOR TO PAVING

Rutgers 57th Annual New Jersey Asphalt Paving
Conference

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TACK COAT



BONDING



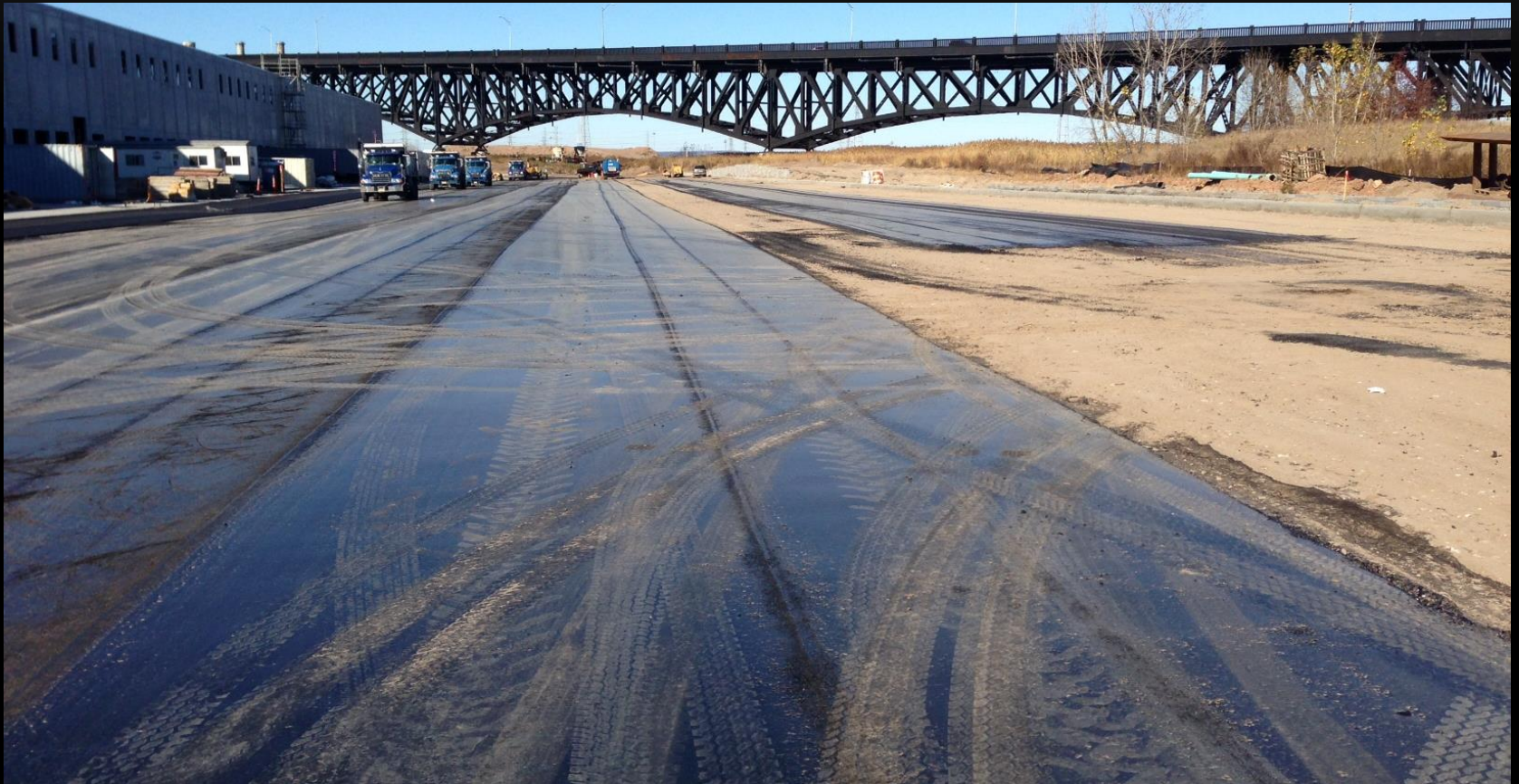
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WHY DO WE USE TACK COAT?

TACK COAT IS USED TO CREATE THE BONDING CAPABILITY BETWEEN THE EXISTING SURFACE AND THE NEW ASPHALT THAT IS BEING APPLIED

Why is this important?

- 1) The expense, risk and overall success of any good paving project can come down to the least expensive component of the entire process
- 2) Tests show that the lack of tack coat can lead to delamination of the surface and premature surface defects









WHAT IS TACK COAT?

TACK COAT IS AN ASPHALTIC MATERIAL USED IN THE ASPHALT PAVING INDUSTRY

MOST COMMON TYPES OF TACK COAT:

1. *ASPHALT CEMENT*

- Performance Grade; PG 58-28, 64-22, 76-22

1. *EMULSIFIED ASPHALT*

- Water Based; RS-1, SS-1H, CSS-1H

1. *CUT BACK ASPHALT*

- Solvent Based; RC-70

ASPHALT CEMENT - PERFORMANCE GRADE

PROS

- 100% Asphalt material delivered no evaporation of water
- Applied evenly over the pavement achieving full coverage
- Applied at very high temperature assuring thorough blending

CONS

- Material Handling (This is why emulsified asphalt has emerged)
- Clogging Nozzles when temperature cools
- Costly to apply heat continually to ensure thorough blending
- Storage
- Training
- No ability to apply by hand if material falls below recommended temp

PRESSURIZED DISTRIBUTORS



PENCIL LINES



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EMULSIFIED ASPHALT - WATER BASED

PROS

- Handling
- Temperature
- Storage
- Cost
- tracking

CONS

- Tracking RC-70

COMPUTER CONTROLLED PRESSURIZED DISTRIBUTORS

Manual application

- Applied by hand
- Hand brooms
- Dribble trucks or gravity feed

Computerization

- Pressurized distributors
- Precise application rates
- Computer controlled
- Tack coat applied as a fog seal

COMPUTERIZED RATE CONTROL

- The move from pressurized to computerized distributors
- Tack coat can now be applied as a fog seal
 - Keep very accurate application rates
 - Ensure total coverage of the entire surface not just where the nozzles are
 - The ability to put paving equipment on the material immediately
 - Very little tracking if any as compared to cut backs/RC-70

COMPUTERIZED DISTRIBUTOR



TACK COAT CONTINUES TO EVOLVE

- New equipment advances/product development
 - Computer rate control ensures
 - Accurate amount of tack coat delivered every time
 - Prevents the chance of tack coat flushing up through the mat
 - Continues to add value to the success of paving projects

NEW TECHNIQUES IN APPLICATION



FAQS ABOUT TACK COAT

- When can I use water based emulsion?
- Do I have to use RC-70 in the summer?
- Do I have to heat the material?
- What is the proper application rate?
- Can I switch from RC-70 to RS-1?
- Can I go from RS-1 to CSS-1h?
- What is the shelf life of my product?