Cape Seal Treatment Overlay

Presented by,
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President/Owner Vestal Asphalt Inc.

What is a Cape Seal Overlay?
- Combination of mass crack sealing utilizing polymer modified emulsion, covered with a quality crushed aggregate and an application of quick set slurry seal
- It provides an economical durable overlay for fatigued and badly cracked surfaces

The site is inspected to see if it is a good candidate...

... the site is swept to remove excess debris and dirt ...

... a polymer asphalt emulsion is applied with a conventional distributor ...

covered with conventional chip seal aggregate...
.. and rolled with rubber-tired rollers.

After the emulsion has set, usually 24 hours, the excess is swept off and removed.

A quick set slurry seal is then applied over the aggregate chip seal...

... and the site is cleaned up and opened to traffic.

Polymer asphalt emulsion is used to enhance the sealing and elastic characteristics of the asphalt residue...

Elastic Recovery...
These improved properties help fill and seal cracks as well as bind the individual sections of existing pavement together.

The polymer emulsion should be applied at the maximum rate possible to provide adequate material to fill large cracks.

Slurry

Maximum application rate is determined by the size of the cover aggregate

Cover aggregate should be clean cubical (crushed) washed stone up to ½ inch maximum

Larger stone → more emulsion that can be applied

Conventional chip sealing encourages only enough emulsion to adhere the stone, but cape sealing will allow more without little fear of bleeding...

Bleeding is minimized by use of polymer and the dense slurry overlay. Slurry seal has proven to provide maximum bleeding control because of it’s dense gradation.
**Slurry Seal...**

- Provides polymer modified mass crack filling system
- Can provide up to a ¼ inch deep overlay
- Extremely affordable compared to hot mix overlays
- Very environmentally friendly using asphalt emulsions and cold thin seal overlay technology

**Advantages of Cape Seal...**

**Disadvantages...**

- Is a two step process usually requiring 24 hours between applications
- Initial application looks like a chip seal and can be politically sensitive

**When it should be used...**

- Best used where a chip seal is too rough and the project requires a smooth finish
- This works well in residential streets
- Also when cracking is a problem a polymer or asphalt rubber modified chip seal can alleviate cracking and the slurry provide the smooth and hard wearing surface

**Chip Seal and Cape Seal Demonstration**

1:15 - 2:30 pm

**Last Thursday & Friday**

- 2 lanes between parking bays
- Eastern half more distressed

**You are here!**

**Pothole Picnic!**
Southern Lane
- Chip Seal #1ST stone
- Polymer Chip Seal (#1a stone)
- Slurry over Chip Seal (Cape Seal)

Northern Lane
- Chip Seal
- Polymer Chip Seal

What You Will See Today
Southern lane
- Cape Sealed last week
Northern Lane,
- ½ Polymer chip seal
- ½ Slurry over chip seal → Cape Seal

By the end of Today
Southern lane
- Cape Sealed last week
Northern Lane,
- Cape Seal chip sealed portion
- Site cleaned up

Please stand on the grass during the applications!
Thank You

Vestal Asphalt
- Neil Guiles, President
- Jim Unkel, VP, Operations
- Greg Humphrey, Technical Advisor
- Pat O’Neill, Slurry Supervisor

Ithaca College
- Ernie McClatchie, Director of Grounds & Trans.
- Nick McCabe, Grounds Foreman

Workshops after the Demo!
2:45 – 4:00 pm

Questions or Comments