

Reflective Cracking

Reduce it

Stop a major % of the cracks

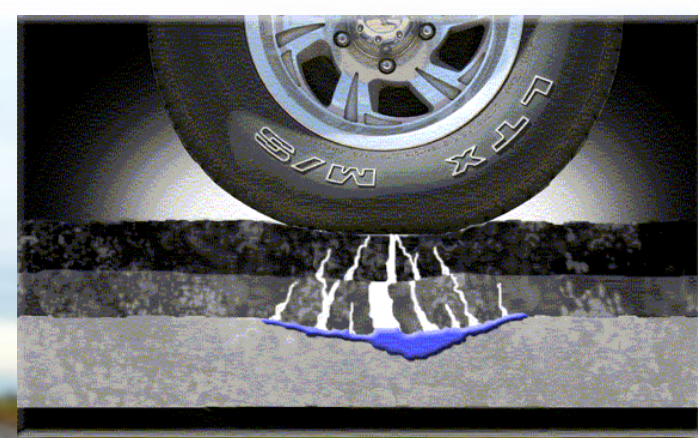
Retard it

Delay the reflection through a surface treatment.

Control it

Install a seal so that the cracks that reflect, don't deteriorate the pavement.

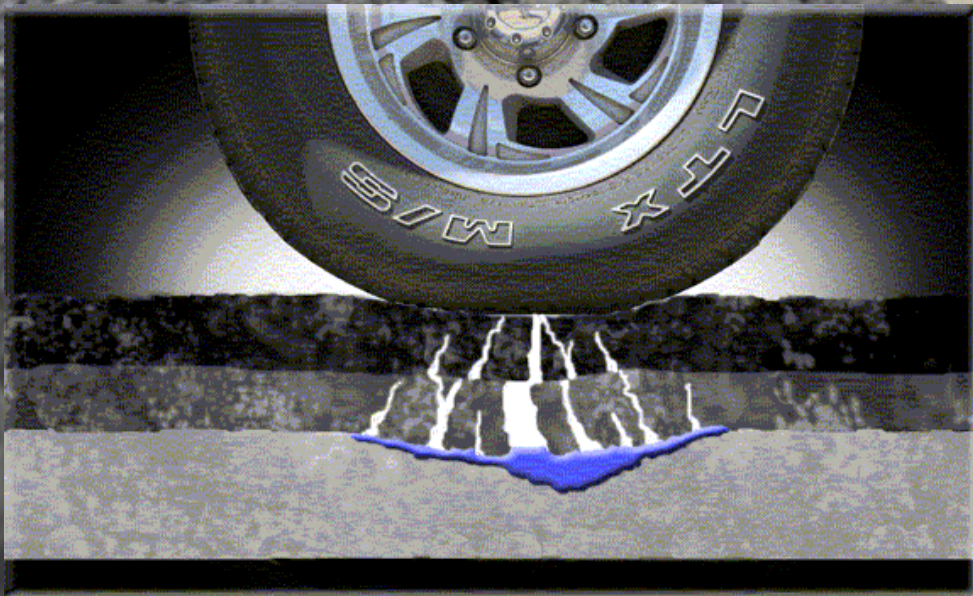
Presented By: Job Davis



What can't be done?

Eliminate It forever!

There are options to manage reflective cracking and diminish the adverse effects of reflective cracking.



**What can be done
to reduce or
retard cracks?**

**Composite
Membranes**

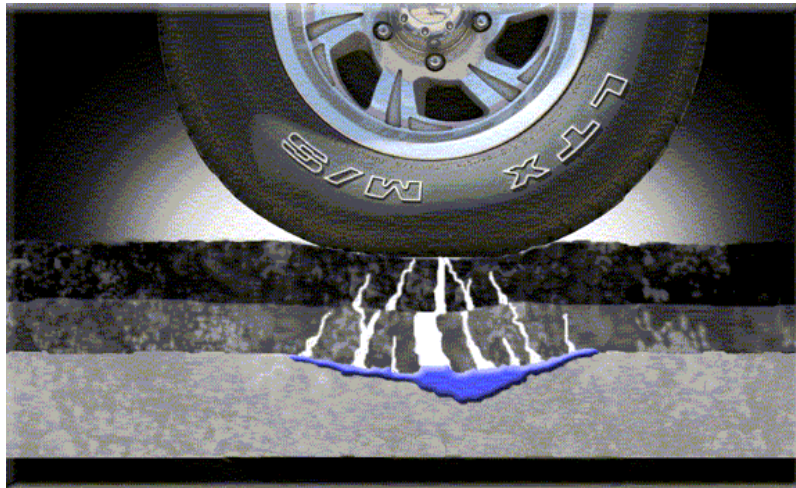
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AN **ERGON** COMPANY



A composite membrane works in several ways to retard cracking.

With nothing cracks reflect quickly

High Strength Fabric Membranes



These products are easy to apply.



Once in place it can be opened to traffic prior to paving.



You need to have realistic expectations.

- These product will effectively retard both the amount and the severity of reflective cracking in an overlay.
- Nothing is a 100% cure. *They don't work well in areas of vertical deflection.*



**What can be done
to reduce or
delay cracks?**

**Pavement Joint
Adhesive**

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Stop Paving Joint Failures

This is the single most annoying issue in the asphalt pavement industry.



- **Accelerating deterioration**
- **Requires maintenance**
- **Shortened pavement life**



Stop Paving Joint Failures

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Joint Adhesive

Application of specialized materials to the cold joint surface

- Seals and protects the low density area
- Adheres and provides flexibility the joint



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Stop Paving Joint Failures

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Performance Studies

National Center for Asphalt Technology

NCAT, Longitudinal Joint Construction Techniques
For AC Pavements

➤ Length of Study

1992 to 2001

➤ Test Deck Locations:

Michigan, Wisconsin, New Jersey, Colorado,
Pennsylvania



Stop Paving Joint Failures

This is the single most annoying issue in the asphalt pavement industry.

Studied 9 techniques to prevent failures at the paving joint.

- 12/1 wedge (POOREST PERFORMANCE)
- Hot side rolling
- 3/1 wedge
- Cold side rolling
- Cutting wheel (# 2 PERFORMANCE)
- Edge resistant
- Infrared heater
- Joint maker
- Joint adhesive (BEST PERFORMANCE)



Stop Paving Joint Failures

This is the single most annoying issue in the asphalt pavement industry.



Year Five Project Review Photos

Control Section

Joint Adhesive Section



Stop Paving Joint Failures

This is the single most annoying issue in the asphalt pavement industry.

Joint Adhesive Acceptance:

New York Thruway

Maine DOT

MASSDOT

Minnesota DOT

Indiana DOT

Washington DOT

Oregon DOT

Kentucky DOT

New Hampshire DOT

AND MORE



**What can be done
to reduce or
retard cracks?**

Mastic Repairs

CRAFCO[®] **INC**
AN **ERGON** COMPANY



What are Mastics?

Mastics are a hot applied, flowable, aggregate filled flexible material, applied as a void-less mass to fractures, voids or other distresses for preventative maintenance and repair to increase safety, slow continued deterioration and restore the pavement ride condition.

Features

- *Flexible*
- *Void less*
- *Requires no compaction*
- *Highly Adheres to AC and PCC pavement*
- *Feathered Edge*
- *Ready for traffic as soon as it has cooled*
- *Small Crew for Install*
- *Limited Equipment Needs*
- *Load Bearing*



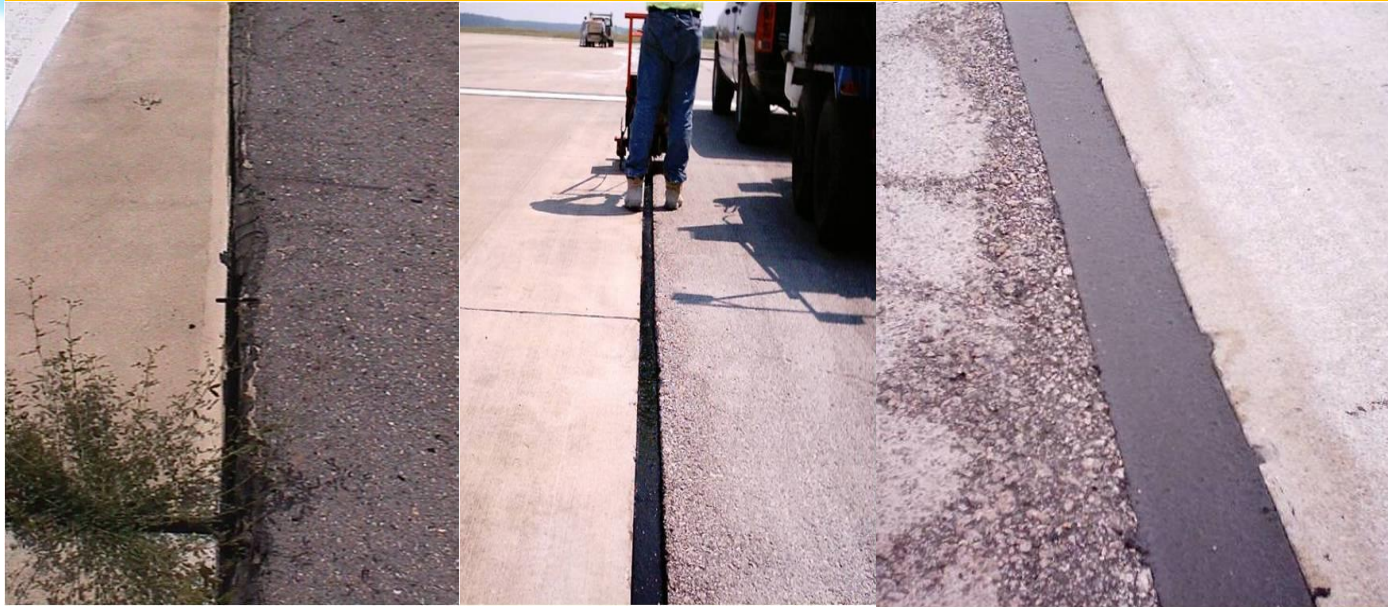
Is Sealant the right choice or should you use a mastic?



Installation is Simple and Quick.

Is Sealant the right choice or should you use a mastic?

When the defect requires leveling or is larger than a sealant alone should be used to repair, mastics are a good choice for your preservation tool box.



Is Sealant the right choice or should you use a mastic?

Sealant won't take the bump out of a bridge approach. Hot Mix Skin patch wont last. Mastic repairs work great.



Is Sealant the right choice or should you use a mastic?

Shoulder Repair

- Small Crew
- One Truck
- No Roller
- Levels & Seals
- Open to traffic in minutes.



Is Sealant the right choice or should you use a mastic?

We have all driven on the road that went thump, thump, thump for miles.

Mastic can take the thump out.

- Blow the crack clean
- Screed the Mastic
- DONE in minutes.



Is Sealant the right choice or should you use a mastic?

Mastic will seal and bridge the depressions that are wider than the crack.



Is Sealant the right choice or should you use a mastic?



CONCRETE PAVEMENT TOO!



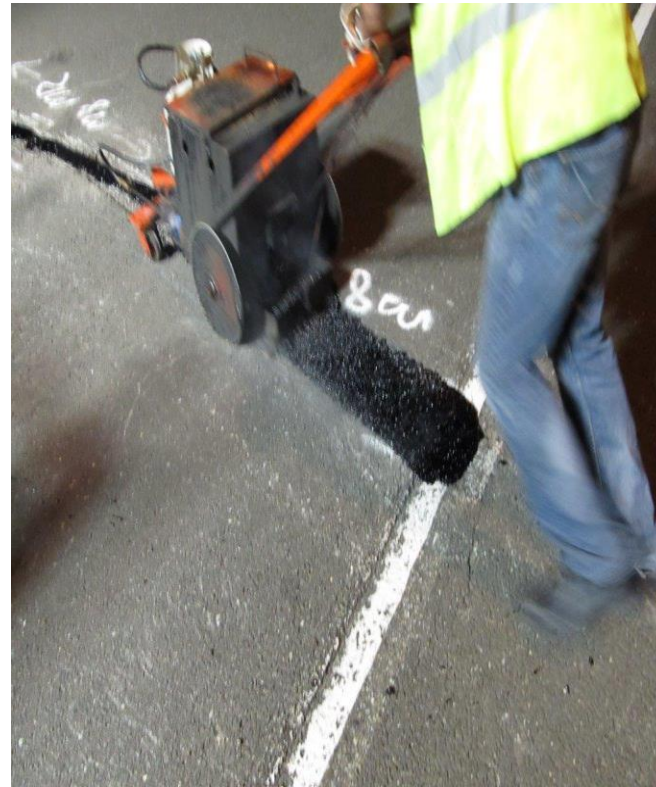
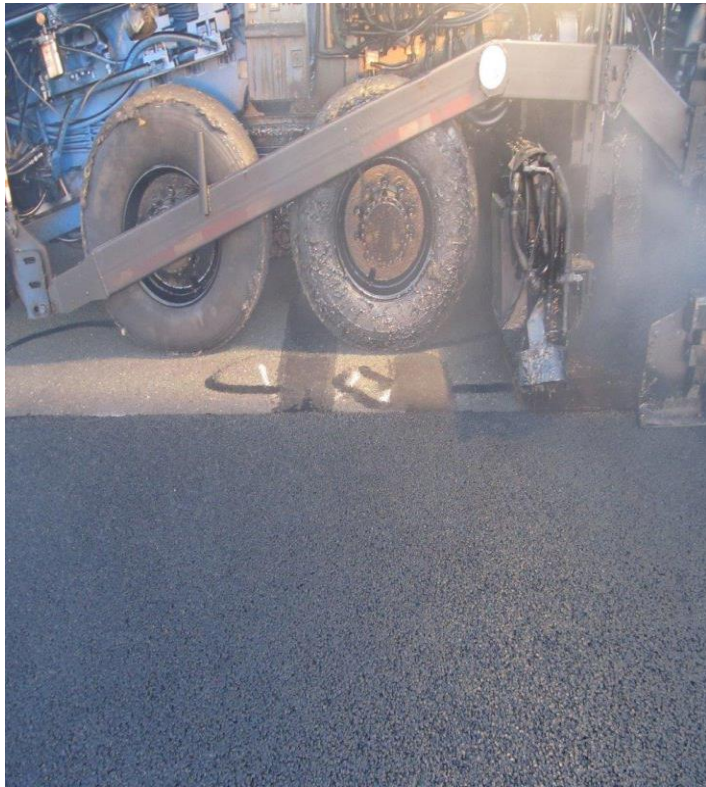
Is Sealant the right choice or should you use a mastic?



In Preparation for a Micro, Slurry or Thin Overlay you must treat the cracks or they will reflect through quickly.



Is Sealant the right Choice or should you use Mastic?



Mastic prior to Nova Chip.



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