



CRACK SEALING BASICS

SAVING OUR ROADS, DRIVEWAYS AND PARKING LOTS

CRACK SEALING IS AN INTEGRAL COMPONENT OF AN EFFECTIVE PAVEMENT PRESERVATION PROGRAM



CrackPro Melter/Applicator



CrackMaster Crack Sealants

“Pavement Preservation” is a cost effective set of practices that extend pavement life and improve safety and motorist satisfaction while saving public tax dollars.

Crack sealing is designed to extend the life of existing pavements by eliminating or reducing the entrance of water into the pavement structure through the upper surface. By stopping the entrance of water, the rate of deterioration of the road is significantly slowed. Crack sealing also prevents the loss of aggregate from the edges of the crack.

MOISTURE INTRUSION INTO CRACKS IS ONE OF THE LEADING CAUSES OF PAVEMENT DETERIORATION



Pavement deterioration occurs when melted snow or rainwater seep through cracks in the pavement and can't get absorbed into the frozen ground. When the water freezes, it expands and can “pop” or weaken the asphalt. The weight of autos rolling over the weakened pavement causes chunks to break away.



CRACK FILLING PREVENTS MOISTURE INTRUSION INTO PAVEMENT CRACKS BY PROVIDING A WATER PROOF BARRIER



TYPES OF CRACKS IN ASPHALT ROADS

Cracks in pavement appear in various sizes, lengths and configurations depending upon the underlying cause.



TRAVERSE CRACKS

Cracks perpendicular to the center line of the road.

Possible Causes:

- Shrinkage of pavement due to low temperatures or aging of asphalt binder.
- Reflective crack caused by cracks underneath.
- Top down cracking due to traffic loads.



LOGITUDINAL CRACKS

Cracks parallel to the pavement's center line or lay down direction.

Possible Causes:

- Poor paving joint construction.
- A reflective crack from underlying layers.
- Top down cracking due to traffic loads.



BLOCK CRACKS

Interconnected cracks that divide the pavement up into rectangular pieces.

Possible Causes:

- Inability of asphalt binder to expand and contract with temperature cycles.
- Aging and hardening of asphalt binder.
- Poor choice of asphalt binder in the mix design.

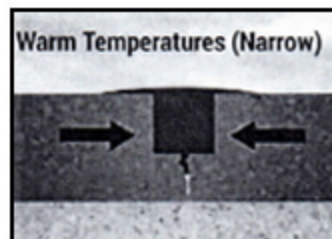
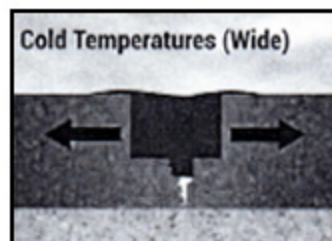


WHAT IS HOT RUBBERIZED ASPHALT CRACK SEALANT?

Hot rubberized crack sealant is a blend of asphalt and polymers that is heated to approximately 400 F in specialized oil-jacketed melting kettles. The molten rubberized asphalt liquid is then applied into cracks in asphalt pavement, providing a moisture proof resilient barrier as the material cools. The material is supplied in 25 to 30 lb. solid blocks that are added to melters and heated.



Hot rubberized asphalt crack sealants exhibit outstanding resilience, flexibility, durability and adhesive qualities - making it the ideal crack sealant for asphalt pavements.



CLEANING CRACKS WITH COMPRESSED AIR

This method utilizes high pressure compressed air to "blow out" and clean cracks just prior to filling.





CRACK PREPARATION TECHNIQUES CONTINUED

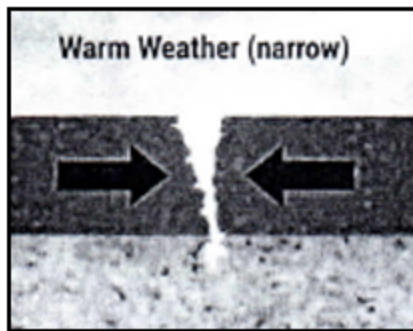
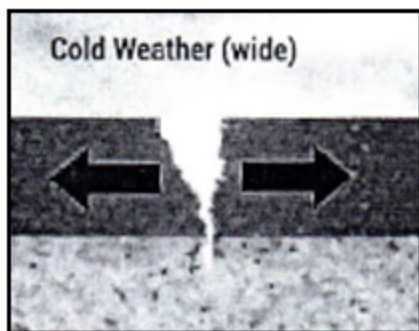
ADVANTAGES OF COMPRESSED AIR

- Fast and cost effective.
- Removes the majority of dirt and debris from cracks.
- Can easily follow meandering and random cracks.

DISADVANTAGES OF COMPRESSED HOT AIR

- Does not widen small cracks as routing does.
- Does not thoroughly dry cracks that have water or ice in them.
- On small cracks, air alone will not remove vegetation.

APPLYING HOT RUBBERIZED ASPHALT CRACK SEALANTS



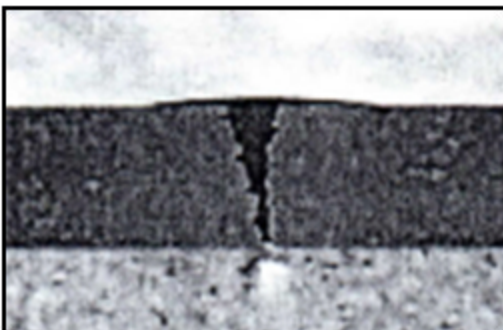
Ideally, hot rubberized crack sealants should be applied when the air is between 45 and 65 F in geographic that are subject to cold winters. Cracks open up wider at cooler temperatures and contract or become narrower in warmer temperatures. It is advantageous to apply crack sealant when cracks are open wider. However, in warmer southern climates, this becomes less important as cracks tend to not move or open up as much.



The crack sealant should be applied leaving a thin over-band of material on each side of the crack.

Thick overbands and material ridges should be avoided to avert snow plow damage in colder climates.

Popular Crack Filling Methods



1. Non-Routed Crack

In summary, use the best sealant, clean and dry the cracks, don't overheat the material and don't excessively over fill the cracks.

For more information on CrackPro Equipment and CrackMaster Products contact your local SealMaster representative at **800-395-7325**



WE USE SEALMASTER PRODUCTS