

DURA-FILL®

HOT POUR CRACK & JOINT SEALANTS

■ 90% of asphalt pavements have significant problems because water deteriorates the pavement, the base course, and the subgrade material. (1)

■ “Every \$1.00 spent on crack sealing, saves \$4.00 in rehabilitation cost.” (2)

■ The performance life of a crack sealing is affected by the crack preparation and the type of material used. Proper crack sealing can provide up to 9 years of service life. (3)

■ A surface seal costs 3- 4 times more than crack sealing, an overlay costs 8 - 26 times more. With surface seals and overlays, pavement problems are only solved temporarily because cracks reappear within a 1-2 year span. (1)



Effectiveness of Crack Sealing **P.1**

Types of Cracks **P.2**

Dura-Fill Product Spotlight **P.2**

Pavement Deterioration Process **P.3**

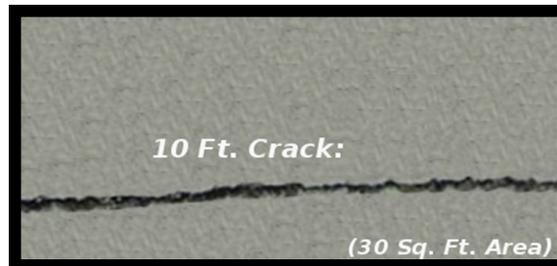
Crack Sealing Tips **P.3**

Crack Sealing = Cost Effective Preventative Maintenance

Hot pour crack and joint sealants form a long-lasting, resilient seal which is flexible in varying and extreme pavement temperatures.

Cracks in asphalt and concrete collect debris and water. The water and debris move into the base and cause base failure, pavement deterioration and potholes; which lead to very expensive replacements.

Crack sealing is designed to extend the service life of existing pavements by eliminating or reducing the entrance of water and debris into the pavement structure. By crack sealing, the rate of pavement deterioration is significantly slowed. This process allows the need for overlaying to be deferred for a substantial number of years.



Crack sealing can and should be applied to transverse, longitudinal, block and reflective cracks. It cannot save a pavement with alligator cracking. When an overlay is necessary, crack sealing prior to the overlay slows the reappearance of reflective cracks in the new surface.

(1) Eaton, R.A., and Ashcraft, J., "State-of-the-Art Survey of Flexible Pavement Crack Sealing Procedures in the United States", US Army Corps of Engineers Cold Regions Research & Engineering Laboratory, CRREL Report pp. 92-118, September, 1992.

(2) Strategic Highway Research Program, "Distress Identification Manual for the Long-Term Pavement Performance Project", SHRP-P-338, Washington, DC, 1993.

(3) Federal Highway Administration, U.S. Department of Transportation, "Materials and Procedures for Sealing and Filling Cracks in Asphalt-Surfaced Pavements", FHWA-RD-99-147, Washington, DC, 1999.

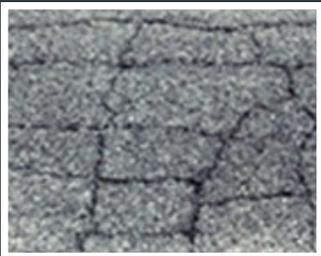
P&T Products

TYPES OF CRACKS

Reflective Cracks happen when an existing crack or joint in the underlying pavement structure reflects upward through the surface.



Block Cracks form a square pattern, with cracks intersecting each other at nearly right angles. A common cause of this on parking lots is lack of traffic, (steady traffic constantly kneads the pavement and keeps it flexible).



Edge cracks appear only parallel to and within 18" of the end of the pavement. Causes include poor base, lack of shoulder support, poor drainage, or frost action.



Longitudinal cracks are parallel to the pavement's centerline. They are a type of fatigue cracking.



Crack Sealant Spotlight

The type of crack sealant applied is extremely important. The crack sealant must match the type of application equipment being used, the type of job site, the climate and any state or local specifications. No matter how expensive the sealant is, it is the least expensive part of the job. Labor and equipment costs are far greater expenses. To skimp on the sealant can cost more in the long run. A cheap sealant does not last as long nor is it as effective as the proper crack sealant for the job site.

Dura-Fill PL

Dura-Fill PL is designed for use in oil jacketed kettles or direct fire kettles providing that they are equipped with a mechanical agitator system and temperature controls. Dura-Fill PL is relatively hard and has a high softening point, which makes it well suited for parking lots.

Dura-Fill PL LP

The LP in Dura-Fill PL LP stands for low penetration. This material is harder at elevated ambient temperatures than traditional parking lot materials. Dura-Fill PL LP also has a lower initial surface tack. These properties make Dura-Fill PL LP a perfect choice for hot climates or job sites where opening up to sealcoating operations or to traffic needs to occur timely.

Dura-Fill HS

Dura-Fill HS is a premium quality direct fire material that is extremely successful in driveway and parking lot applications. Due to its high softening point and low penetration, Dura-Fill HS can withstand the added stresses of driveways and parking lots such as power steering, foot traffic, and shopping carts. Dura-Fill HS is heat stabilized to withstand direct fire heating without experiencing polymer degradation, making it ideal for direct fire heating applications.



P&T Products



Dura-Fill HS2

Dura-Fill HS2 is a specialty grade, economical, direct fired material. HS2 can withstand the unique challenges of driveways and parking lots such as power steering, foot traffic and shopping carts. This material has a high softening point and good low temperature flexibility making it a preferred material for most climates.

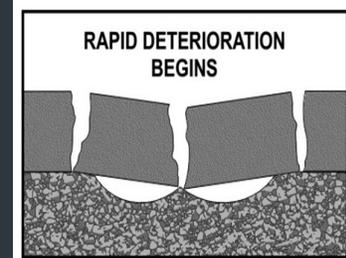
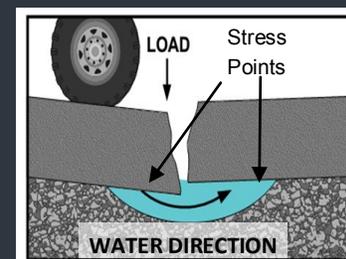
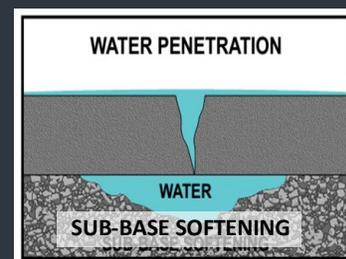
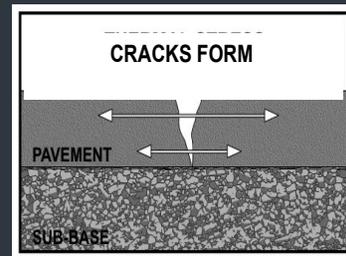
Dura-Fill DUO

Dura-Fill DUO is the ideal product for the applicator who wants a single product to use in both road and parking lot applications. DUO meets ASTM D 6690 Type 1 requirements for roadways, yet it has a lower penetration level and higher softening point than traditional ASTM materials. This makes DUO a reliable choice for both types of applications.

Dura-Fill 320 and 320 HT

Dura-Fill 320 is an economical crack sealant designed for use in oil jacketed kettles only. It resists tracking at elevated temperatures and is flexible to 0°F. Dura-Fill 320 HT is formulated for "High Temperature" zones. It has a higher softening point than the standard formula and is flexible to 20°F. The 320 products have an elevated crumb rubber content that makes the material thicker with a textured appearance.

Pavement Deterioration Process



If crack sealant is not applied, water penetration occurs and the base is softened causing the pavement to lose its support. Vehicles compress the pavement downward causing water erosion to the base and the underside of the pavement. Stress points are created as the pavements' support system is eroded. Further pavement deterioration occurs; causing alligator cracking or potholes. When crack sealant is applied the deterioration is immediately stopped.

Crack Sealing Tips

Crack Sealing Tips to Make Every Job Look Professional and Have Long Term Performance

Oil jacketed sealants cannot be heated in direct fired equipment.

Always follow manufacturer's application temperatures.

Check sealant temperature periodically throughout the job.



Keep heating unit at least 1/3 full of material.

Apply 10 feet of crack sealant, allow to cool, and check for adhesion before continuing.

If a crack is excessively deep, fill the bottom using inexpensive materials such as backer rod, stone dust, or sand. Otherwise the crack sealant may sag and therefore pull away from the crack walls.