

# BREWER COTE® *of Arizona*

## **Application Instructions for Hot Pour Crack Filler**

These application instructions apply to the Hot Crack & Joint Sealants

**General:** These sealants are hot applied single component rubberized asphalt products which are supplied in a solid block form in packages. To use the product, remove from package and heat in an appropriate melter and then apply to pavement cracks and joints. Specification and usage applicability for each sealant are shown on the sealant product sheets.

**Melting:** These sealants must be melted in a jacketed double boiler type melting unit with effective agitation system. The heat transfer oil in the melting unit should not exceed 525° F during melting of the sealant. The unit must be capable of safely heating the sealant to 410° F. **Caution:** Do not agitate when adding new blocks of sealant because splashing may occur. Prior to applying sealant, it should be heated to between the recommended pour temperature and the safe heating temperature.

**Application Methods:** Application is best performed with a pressure feed wand system from a sealant Melter applicator unit. Lower viscosity sealants can also be applied using gravity feed pour pots. Higher viscosity sealants may be difficult to apply using pour pots.

**Pavement Temperatures:** Sealant should be applied when surface temperature exceeds 40° F. Application at lower temperatures may result in reduced adhesion due to possible presence of excess moisture or ice in the cracks or joints. If the surface temperature is lower than 40° F, it may be warmed by appropriate methods to achieve the minimum required temperature. If conditions require that the sealing be performed at a lower surface temperature, less than 40° F, extreme care should be used to insure that the cracks or joints are dry and free from ice and other contaminants. Sealant temperature should be maintained at the safe heating temperature. Applied sealant should be checked by qualified personnel to assure that adequate adhesion is developed.

**Pavement Cleaning Procedures:** For best performance, cracks and joints should be cleaned using appropriate routing, brushing, or blowing operations to provide intact bonding surfaces which are free from all dust, moisture or other contaminants. Typical equipment types used include routers, power brush devices, air compressors, water blasters, heat lances, diamond saws, and other sand blasters. Equipment types and methods used should be chosen to yield the best results.

**Application Configurations:** These sealants are applied to cracks and joints in configurations ranging from thin band aids to sawn reservoirs. For best performance the sealant depth to width ratio should not exceed 2 to 1. The lower the depth to width ratio (1 to 1 for example) the better the performance. To reduce pick up by vehicle tires or plow abrasion, sealant height should not exceed 1/8" above the pavement surface.

**Asphalt Cracks:** Cracks should be route to minimum width of 3/8" and minimum depth of 1/2". Following appropriate cleaning, sealant should be applied to a slightly overfilled condition and then leveled to less than a 1/8" thickness with a squeegee or sealing shoe to produce a band which is 2" to 4" wide and is centered over the crack.

**Concrete Joints:** Backer Rod use is required for best sealant performance in concrete joints. Conventional joint designs required that the sealant be recessed approximately 1/4" below the pavement surface. Recently available performance data, however, indicates that hot applied sealants perform much better in concrete joints if the joint is slightly overfilled and then leveled to a maximum height of 1/8" above the pavement surface with a slight overlap on each edge.

**Application Life:** Application life at application temperatures is approximately 12 to 15 hrs. Application life may be extended by adding fresh blocks of sealant as quantity in the kettle decreases. The sealant should be agitated while being applied. The sealant may be reheated to application temperature once, after the initial heat up. Additional reheating of the material may result in degradation of properties. When the application life has been exceeded sealant will begin to thicken, become stringy and may then gel. If this should occur, the sealant should immediately be removed from the kettle and discarded. Brewer Flex ® sealant will tend to soften when overheated or heated for too long.

**Application Precautions:** These products are adhesive and flexible materials used to seal cracks and joints in highway and airfield pavement. In certain situations, additional consideration needs to be given to product selection and application geometries.

- 1. Pavement lots and other areas subjected to slow moving traffic and pedestrians:** The sealant used should be stiff enough at hot summer temperatures to resist pick up and application should be performed so that sealant is not applied on top of the pavement surface. Brewer Flex® Poly PL is specifically designed for use in these applications. Use of the wrong product for the climate area, and/or use of inappropriate application techniques can result in tracking.
- 2. Pavement which will receive an Overlay, Surface Treatment, or Seal Coat:** In these situations, the sealant will be subjected to effects from heat from the overlay and carriers for the surface treatments and seal coats. If sealant is applied on top of the pavement and an overlay is then placed, bumps and shoving can occur in the overlay. Solvents or other carriers in surface treatments or seal coats may soften sealant. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the sealant and treatment.
- 3. High severity cracked areas:** Extensively cracked areas of pavements (such as alligator or fatigue cracks in wheel paths) should not be sealed by covering the cracks with sealant because pavement friction may be affected. Areas with extensive cracking can be crack sealed if followed by a surface treatment or overlay which restores surface characteristics.
- 4. Fuel or oil spill areas:** These sealant products will soften if subjected to fuel and oil spillage; therefore, they should not be used in these areas.

**Clean Out:** If equipment being used requires clean out of pumps and plumbing, follow the manufacturers clean out instructions. If solvent is used for clean out, ensure that the solvent does not contaminate the sealant because sealant dilution and flash problems may occur.

**Storage:** Pallets of boxed product are protected with a weather resistant covering. During storage the protective wrap must be kept on the pallets to prevent boxes from getting wet. If boxes are subjected to moisture, they may lose strength and crush resulting in pallet leaning. Pallets should not be stacked since crushing of bottom layers may occur.

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