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INSTALLATION INSTRUCTIONS

CRAFCO DF

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READ BEFORE USING THIS PRODUCT

GENERAL: Crafco DF is a premium hot-applied, single component, polymer modified asphalt supplied in solid block form that is used to fill cracks in asphalt or Portland cement concrete pavements. To use, product is removed from the package, heated in a melter and then applied. Details on product specifications, climate and usage suitability, and product selection are contained in Product Data Sheets.

MELTING AND APPLICATION: Crafco DF can be melted in direct fired melters or jacketed double boiler melters with effective agitation that meet requirements of appendix X1.1 of ASTM D6690. Heat transfer oil should not exceed 525°F (274°C). The unit must be capable of safely heating product to application temperature. **CAUTION:** Do not agitate when adding product due to splashing. To use, product is heated to the recommended application temperature range of 400 to 450F (204 to 232C) which is shown on product boxes and the Product Data Sheet. The modifier systems contained in Crafco DF can withstand temperatures up to 550°F (274°C) without experiencing degradation. Product is most effectively applied with pressure feed wand systems, but can also be applied using gravity feed pour pots (Part No. 40200 or 40201)

APPLICATION LIFE: Crafco DF may be reheated several times after the initial heat-up. It will not gel when overheated or heated for extended periods. Temperature above 450°F (232°C) for extended periods will tend to soften the material and may create a flash point concern.

PAVEMENT TEMPERATURES: Apply product when pavement temperature exceeds 40°F (4°C). Lower temperatures may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is lower than 40°F (4°C), it may be warmed using a heat lance (Part No. 45650) that puts no direct flame on the pavement. If installing at lower pavement temperatures than 40°F (4°C), extreme care should be used to insure that cracks or joints are dry and free from ice and other contaminants. Product temperature should be maintained at the maximum (safe) heating temperature. Applied product should be checked by qualified personnel to assure that adhesion is adequate.

TRAFFIC CONTROLS: Place traffic controls in accordance with Part 6, Temporary Controls, of the FHWA Manual on Uniform Traffic Control Devices (MUTCD) to protect the site for the duration of the repairs.

CRACK CLEANING: For appropriate adhesion, cracks must be clean and dry immediately prior to installation. After widening (if done) and debris removal, and just prior to product installation, final cleaning shall be accomplished using high pressure, clean, dry, oil free compressed air at 90 psi (620 kpa) minimum to remove any remaining dust. Both sides of the crack shall be cleaned. Surfaces should be inspected to assure adequate cleanliness and dryness.

CRACK FILLING INSTALLATION: Crack filling consists of installing flexible, traffic resistant product into prepared, cleaned, non-working pavement cracks. Filler can be installed in either cleaned or routed cracks or in surface overbands.

Routed Reservoir – Routed reservoirs are recommended for longest life. Guidelines for determining reservoir use are:

1. Crack density should not exceed approximately 20% (linear feet of cracks per square feet of pavement area).
2. Pavement should be sound enough to resist significant spalling during cutting. (Final reservoir width should not exceed double the cutter width, or 1 ½”(38 mm)

Reservoir Dimensions – Determined as follows:

1. The cut should remove at least 1/8” (3mm) from each side of the crack and cut back to sound pavement.
2. Minimum width is ½” (12 mm), maximum is 1 ½” (38 mm).
3. Recommended cut depth is ¾” (19 mm).

Cleaned Cracks – Cracks may be cleaned and filled, without reservoir cutting, however longer life is achieved with reservoirs. Cleaning consists of using high-pressure compressed air, or bushing techniques to remove debris.

Surface Overbands – Product can be applied in overbands after crack and surface cleaning with compressed air. Overbands should not exceed 1/16” (1.5 mm) high above the pavement surface or extend greater than 2” (50 mm) beyond each crack edge.

Filler Installation and Finishing – After cleaning, sealant at the required temperature is installed in the crack. Sealant can be installed with up to a 3/8” (10mm) underfill, flush fill, or with an overband cap that does not exceed 1/16” (1.5mm) above the pavement surface, and not greater than a 2” (50mm) width beyond crack edges, depending on project specifications. These configurations are achieved using appropriate wand tips, shoes, or squeegee available from Crafco. To reduce surface tack, Crafco Detack or other approved material may be applied.

APPLICATION PRECAUTIONS: In certain situations, additional consideration needs to be given to product selection and application geometries.

Parking lots and other areas subjected to slow moving traffic and pedestrians: Product must be stiff enough at hot summer temperatures to resist pick up and should not be applied on top of the pavement surface. Product should have a high temperature grade at least one step above the LTPPBIND grade for the climate. For even better pick-up resistance, increase by two grades.

Pavement to receive an Overlay, Surface Treatment, or Seal Coat: Product will be subjected to overlay heat effects and carriers for surface treatments and seal coats. If product is applied on top of the pavement, and an overlay is then placed,

bumps may form during compaction of the overlay. Refer to “Bump Formation & Prevention in Asphalt Concrete Overlays Which Have Been Crack Sealed” (at www.Crafco.com) for more information. Solvents or other carriers in surface treatments may soften product. Prior to placing a surface treatment or seal coat, a test strip should be placed to verify compatibility of the product and treatment.

High Severity Cracked Areas: Highly cracked areas (fatigue cracks in wheel paths) should not be treated by covering cracks because pavement friction may be affected. These cracks can be filled if followed by a surface treatment or overlay to restore friction.

Fuel or Oil Spill Areas: These products should not be used in fuel or oil spill areas due to softening of the sealant that may occur. Sealant will not adhere to asphalt or concrete pavement surfaces that are contaminated with oil spills.

Crack Sealing or Filling in Pavements with Surface Treatments: When crack sealing or filling pavements with chip seals, slurry seals, and open graded friction courses, routing should be deep enough to extend through the surface treatment layer into the underlying asphalt concrete. This anchors product into solid pavement for better bonding.

CLEAN OUT: If equipment used requires clean out, follow manufacturer’s instructions. If solvent is used, insure that it does not contaminate product because dilution and flash problems may occur.

STORAGE: Pallets of product are protected with a weather resistant covering. During storage, this covering must be intact to prevent boxes from getting wet. If wet, boxes may lose strength and crush. Rips in the pallet covering should be repaired to maintain packaging integrity. Pallets should be stored on a dry, level surface with good drainage. Pallets should not be stacked because crushing of bottom boxes may occur. Product properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since these products are heated to elevated temperatures, it is essential that operations be conducted safely. All personnel need to be aware of hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use and safety information on the box and the product MSDS. User should check D.O.T. requirements for transportation of product at elevated temperatures above 212°F (100°C).

HAZARDS ASSOCIATED WITH HOT APPLIED MATERIALS: Skin contact with hot materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Precautions are to be taken to prevent contact with hot material and to avoid inhalation of fumes for everyone in the vicinity. Safety precautions should include:

1. Protective clothing to prevent skin contact with hot material.
2. Care when adding product to melters to reduce splashing.
3. Careful operation of wands or pour pots used to apply product.
4. Traffic and pedestrian control measures which meet or exceed MUTCD requirements to prevent access to work areas while product is in a molten state.
5. Avoidance of material fumes.
6. Proper application configurations with a minimum amount of material excess.

7. Appropriate clean up of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or Crafco, Inc. This information includes:

1. Product Data Sheets,
2. Material Safety Data Sheets,
3. Safety Manual,
4. Sealing Cracks and Joints in Parking and Pedestrian Areas,
5. “Bump Formation & Prevention In Asphalt Concrete Overlays Which Have Been Crack Sealed”
6. Sealant Selection Guide