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READ BEFORE USING THIS PRODUCT

GENERAL: Mastic Patch is a hot applied, engineer designed, polymer modified asphalt repair for potholes and spalls. Mastic Patch is designed with a flexible binder and clean dry, well graded aggregate and used for repairing potholes and spalls that are at least 2 inches deep and over half a square foot in area in both asphalt concrete and portland cement concrete pavements. When properly applied, Mastic Patch forms a well bonded, flexible, durable, rut resistant repair. To use, Mastic Patch is placed into an appropriate melter (Crafco Patcher II), mixed and heated until application temperature is reached, poured into the prepared repair area and then leveled. Mastic Patch is then ready for traffic when it has cooled and solidified.

MELTING, HEATING AND AGITATING: Mastic Patch is supplied in solid form in a meltable plastic bag in a cardboard box. The aggregate and polymer modified binder are pre-measured and contained in the package but are not pre-mixed. To use, Mastic Patch is placed in a Crafco Patcher II or other approved melter to mix and heat to the proper installation temperature. If inappropriate melters are used, application difficulties, pump system damage, and extreme wear can result.

The melter must be equipped with an effective horizontal agitator system that is able to maintain a uniformly mixed product, have a thermostatically controlled hot oil jacketed heating system and have an effective means of dispensing product. During heating, the heat transfer oil should be heated to between 450 and 525°F (323 - 274°C). Agitation should begin as soon as the Mastic Patch has melted sufficiently for the agitator shaft to turn. Additional Mastic Patch can then be added to the melter. Heating and agitation should continue until all added material has been thoroughly mixed and the product application temperature range of 375 - 400°F (190 - 204°C) has been reached. When necessary on sloped pavements and repairing larger defects, where excess flow of mastic is a factor, Mastic Patch may be applied at temperatures of 360°F – 375°F (182 – 190°C). Additional Mastic Patch can be added as product is used and quantity in the melter decreases. When adding additional Mastic Patch, the agitator must be stopped. After the additional Mastic Patch is added, agitation is to be immediately resumed and application should not resume until required temperatures are reached and all added material has melted, becoming well mixed into the product with no uncoated aggregate present. During application and while product is hot, agitation should be continuous, except for when additional product is being added to guard against aggregate settlement. If aggregate settles in the melter, it may be difficult to agitate product. For best performance, it is recommended that the melter be emptied, or only small amounts of Mastic Patch be left in the melter at the end of each workday.

PAVEMENT TEMPERATURES: Apply Mastic Patch when pavement temperature exceeds 40°F (4°C). Lower temperature may result in reduced adhesion due to presence of moisture or ice. If pavement temperature is less than 40°F (4°C), it may be warmed with a heat lance that puts no direct flame on the pavement (Crafco Part No. 45650). If installing at night, assure that dew is not forming on the pavement surface. Applied product shall be checked by qualified personnel to assure that adhesion is adequate.

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

RECOMMENDED INSTALLATION PROCEDURES:

1. Only apply Mastic Patch to clean, dry voids in sound pavement. Avoid highly distressed areas in need of reconstruction. All areas must be clean from dust and debris. Remove unsound areas of the pavement in the repair void. All areas to be repaired shall be blown with clean, dry, oil free compressed air at 90 psi (620 kPa) minimum. (If sealant won't adhere, neither will Mastic Patch). PCCP shall be abrasive cleaned to achieve maximum adhesion performance.
2. The minimum pavement temperature for installation of Mastic Patch is 40°F (4°C). If the pavement temperature is less than 40°F (4°C), it can be warmed by heating with a heat lance. Heating the pavement will also remove moisture assuring a dry surface. Mastic Patch should be applied within 10 minutes of warming the pavement area.
3. Mastic Patch that has been mixed and heated to installation temperature is poured from the melter and immediately applied to the prepared pavement area or can be poured from the melter into an appropriate bucket such as the Crafco TechCrete Bucket (Part No. 32263) and then applied or poured into the Crafco Material Handler (Part No. 57650) and then installed.
4. Immediately following application to the pavement void, Mastic Patch shall be leveled and smoothed and worked into the edges and to the desired level using a hot iron such as the Crafco Ironing Wand (Part Number 32243). Minimum installed thickness is 2 in (5 cm). The finished Mastic Patch installation should be applied smooth and level with the pavement surface.
5. Mastic Patch cools quickly after installation and is ready for traffic when it has solidified sufficiently to support loads. Apply Crafco DeTack to reduce surface tack and allow quicker opening of the area to traffic.

Mastic Patch binder is self-adhesive and develops a strong bond to the pavement. Shrinkage of approximately 5% occurs as Mastic Patch cools from application temperature to ambient. No compaction is required. After application, time must be given for the product to cool before opening the area to traffic. Cooling time will vary depending on the size of the application and ambient temperature. Generally, allow approximately 30 to 60 minutes of cooling for each 1 in (2.5cm) of material depth.

APPLICATION LIFE: Application life at application temperatures is approximately 12 to 15 hours. Application life may be extended by adding fresh material as quantity in the applicator decreases. Mastic Patch must be agitated while being applied. The material may be reheated to application temperature once, after the initial heat up. Additional reheating of the material may result in degradation of properties. At the end of the installation day, it is recommended that the melter be as empty as possible. Product volume of no more than 25% of melter capacity should be left in the melter for reheating.

When reheating, a volume of Mastic Patch equal to or greater than the amount being reheated should be added to the melter for the next installation. When the application life has been exceeded, Mastic Patch will begin to thicken, become “stringy” and may then gel. If this should occur, the material should immediately be removed from the melter and discarded.

PRECAUTIONS: Mastic Patch will soften, become sticky, and track if exposed to fuel or oil spillage, therefore, it should not be used in areas subject to fuel or oils.

STORAGE: Pallets of packaged product are protected with a weather resistant covering. During storage, the protective wrap must be kept on the pallets to maintain pallet stability. If rips in the pallet covering occur during handling, they should be repaired to help maintain packaging integrity. Pallets should be stored on a level surface which is dry and has good drainage. Pallets should not be stacked because crushing of bottom layers may occur. Mastic Patch material properties are not affected by packaging deterioration.

SAFETY PRECAUTIONS: Since Mastic Patch is heated to elevated temperatures, it is essential that operations be conducted in manners which assure safety of personnel. All associated with use of the material need to be aware of the hazards of using hot applied materials and safety precautions. Before use, the crew should read and understand product use, safety information and the product SDS. This sheet, which is supplied with each shipment, describes the characteristics of the product as well as any potential health hazards and precautions for safe handling and use. 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 applied materials causes burns. Over exposure to fumes may cause respiratory tract irritation, nausea, or headaches. Appropriate precautions need to be taken to prevent contact with the hot material and to avoid inhalation of fumes for everyone in the vicinity of the work area operation. 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 and control of tools which are 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 still in a molten state. 5. Avoidance of material fumes. 6. Proper application configurations with a minimum amount of excesses of material. 7. Appropriate clean up of excessive applications or product spills.

ADDITIONAL INFORMATION: Additional information regarding these products is available by contacting your distributor or Crafcoc, Inc. This information includes 1) Product Data Sheets, 2) Safety Data Sheets, 3) Equipment Safety Manual