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## INSTALLATION INSTRUCTIONS HOT-APPLIED PAVEMENT MARKER ADHESIVES

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### READ BEFORE USING THIS PRODUCT

**GENERAL:** Crafco Hot-Applied Pavement Marker Adhesives are hot melt thermoplastic materials used to bond markers and reflectors to asphalt or concrete pavement surfaces. Two different products are offered- Crafco Hot-Applied Bituminous Marker Adhesive (Part No 34269), formulated with stiff asphalt and high reinforcing filler content, and Crafco Hot-Applied Flexible Pavement Marker Adhesive (Part No. 34270), formulated to be a flexible and impact resistant product better suited for cooler climates. Being hot melt compositions, these adhesives set up quickly on cooling and are ready for traffic in less than 5 minutes. For additional product information and specifications, refer to the Product Data Sheets.

**MELTING:** Both adhesives can be melted and heated in thermostatic controlled oil jacketed melters including Crafco Supershot, EZ Series 2, or EZ Pour melters, or thermostatic controlled electric heating pots. Part No. 34269, Hot-Applied Bituminous Marker Adhesive can also be melted in direct fired single walled agitated melters. Adhesive is to be agitated during melting and installation to assure uniformity and temperature consistency. Hot-Applied Bituminous Marker Adhesive (34269) shall be heated to 375°F to 425°F (190°C–218°C) for application. Hot-Applied Flexible Marker Adhesive (34270) shall be heated to 380 to 400F (191 to 204C) for application.

**PAVEMENT TEMPERATURES:** To achieve best performance, pavement surface temperature during application is recommended to be at least 50°F (10°C). If markers are to be applied in cooler temperatures, the pavement surface may be gently heated with an open flame, heat lance (Part No. 45650) or other approved method immediately prior to marker application.

**TRAFFIC CONTROL:** Place traffic controls in accordance with Part 6, of the FHWA Manual on Uniform Traffic Control Devices (MUTCD) fro the duration of the work.

**PAVEMENT CLEANING PROCEDURES:** The pavement on which markers or reflectors are being applied should be clean, free from dust, oil, dirt or other contaminants and dry. Air blowing with clean, dry, oil free compressed air at 90 psi (620 kpa) minimum, wire brushing or sandblasting may be required to adequately prepare the pavement surface.

**APPLICATION OF MARKERS:** Heated Marker Adhesive should be applied to the pavement surface in a puddle approximately two-thirds to three-fourth the diameter of the marker. Markers should be applied to the adhesive immediately (within 10 seconds) to assure bonding. Markers should be pressed down to force the adhesive out beyond the perimeter of the marker and to limit the thickness of the adhesive between the pavement and the marker. Traffic shall be kept off of the adhered markers for at least 5 minutes after installation.

#### **APPLICATION LIFE:**

**Hot-Applied Bituminous Marker Adhesive (34269)—** Adhesive may be reheated several times after initial heat up. It will not experience jelling when reheated. Overheating will stiffen the adhesive resulting in decreased bonding.

**Hot-Applied Flexible Marker Adhesive (34270)--** Application life at application temperatures is approximately 12 to 15 hours. Application life may be extended by adding blocks of adhesive as quantity in the melter decreases. Adhesive should be agitated while being applied. Adhesive may be reheated once after the initial heat up. Additional reheating may degrade properties. When application life has been exceeded, it will begin to thicken, become "stringy" and may then gel. If this occurs, adhesive should immediately be removed from the melter and discarded.

**CLEAN OUT:** If the equipment being used requires clean out of pumps and plumbing, follow the manufacturer's instructions. If solvent is used, insure that the solvent does not contaminate the adhesive because 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. 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. Product material properties are not affected by packaging deterioration.

**SAFETY AND USAGE PRECAUTIONS:** Since these Adhesives are heated to elevated temperatures for use, it is essential that operations be conducted in manners which assure safety of the application personnel and others. All personnel 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 and safety information in on the box and all sections of the product Material Safety Data Sheet. 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 adhesive 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. Safety precautions should include: 1. Protective clothing to prevent skin contact with hot material. 2. Care when adding blocks of product to melters to reduce splashing. 3. Careful operation and control of wands or pour pots 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 is available by contacting your distributor or Crafco, Inc. This information includes 1) Product Data Sheets, 2) Material Safety Data Sheets, 3) Safety Manual.