

# COLD FLEX 2000

## HIGHWAY MEMBRANE INSTALLATION INSTRUCTIONS

*HOT APPLIED MEMBRANE - Cold Flex 2000*  
*SELF ADHESIVE MEMBRANE - Cold Flex 2000 SA*

### PRODUCT INFORMATION

**POLYGUARD Cold Flex 2000 HIGHWAY MEMBRANE** is a hot applied system adhered to the pavement with an AC tack coat. **Cold Flex 2000 SA** is a cold applied version of the same product, which is installed as a "peel and stick" material. Both products meet the same physical property specifications. **Cold Flex 2000** products have a top layer of high strength fabric, with a thick layer of flexible mastic to provide stress relief, and a bottom layer of high strength fabric. In the self-adhesive product, the bottom layer is laminated in the middle of the rubberized asphalt compound to provide a lower surface of adhesive.

**POLYGUARD Cold Flex 2000**, applied to cracks or joints on an old pavement prior to installation of a new asphalt overlay, reduces the occurrence and severity of reflective cracking in the new overlay. In addition, the membrane will act as an "umbrella" over the old crack or joint, reducing the amount of rain or runoff moisture which penetrates the old pavement surface and reaches the pavement base.

### EQUIPMENT NEEDED

**1. For hot applied material only**, distributor or motorized tar kettle, equipped with hand held wand is recommended. Where not practical, a pour pot may be used to secure the material to pavement, and tack coat squeegeed to required coverage.

**2) Miscellaneous Equipment:**

- a) Razor knives may be used to cut the mat.
- b) Rubber tired or hand roller is required for "rolling in" the membrane.

### INSTALLATION INSTRUCTIONS - HOT APPLIED MATERIAL (Cold Flex 2000)

**Asphaltic Tack Coat:**

Asphaltic tack must be applied to the pavement surface prior to fabric installation. The tack shall be AC 20 (AASHTO M226). AC 10 may be used in cold conditions.

**Application of Tack Coat:**

Spray tack coat at .10 Gal./yd<sup>2</sup>. Fog coat will suffice in warm weather. In colder conditions, heavier spray may be required. In no case should tack exceed .20 gal./yd<sup>2</sup>. This could cause slippage of the mat when the heat of the hot mix relieves the binding agent. Whether tack is being applied by mechanical means or from a pour pot, the edges of the mat are the most important part. Edges should be bonded well to the old pavement. Minimum recommended temperature for the AC-20 tack application is 290°F.

The asphalt tack should be applied 3" wider than the material width. Tack shall be applied no further in advance of material placement than can be accomplished without losing adhesion of the tack.

In certain applications a high solids emulsion such as RS-2 may be used as a tack. Emulsion must break prior to application of the membrane.

**Surface Preparation:**

The surface upon which the material is to be placed should be free of dirt, water, and vegetation. Cracks over 1" or holes are to be patched.



This Information is based on our best knowledge, but POLYGUARD cannot guarantee the results to be obtained

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As of 8/1/2001 Polyguard Products' quality system has been certified to the following quality system requirements:  
• ANSI/ASQC  
• DUTCH COUNCIL FOR CERTIFICATION  
• STANDARDS COUNCIL OF CANADA

**Material Placement:**

The material shall be placed into the tack prior to the time the asphalt has cooled and lost its tackiness. Where transverse and longitudinal joints meet, membrane must be butted or overlapped. Overlap is mandatory on bridge decks. Additional tack is required to bond the two mat areas together where overlapping is used.

**INSTALLATION INSTRUCTIONS - SELF ADHESIVE MATERIAL (Cold Flex 2000 SA)**

- 1) Placement of membrane will be done only when the temperature is above 40°F and rising. The pavement surfaces should be dry and free of any debris.
- 2) Surface shall be primed according to manufacturer's recommendations prior to placement of the membranes. The liquid adhesive shall be placed on the surface, at a minimum rate of 400 ft<sup>2</sup> per gallon (250 ft<sup>2</sup> per gallon on milled surface), 1" wider than the membrane and shall be allowed to dry until tack free before applying the membrane.
- 3) The membrane shall be placed in such a manner as to leave no voids between the membrane and the pavement at faulted joints.
- 4) The membrane shall be installed in widths of 12" minimum and shall be centered over the joint or crack with 2" tolerance. Transverse joints and cracks shall be sealed first starting at the outside edge of the pavement and extending the full length of the joint.
- 5) The outside edge of the joint shall be sealed after the transverse joint. All laps shall be made in such a manner that the paver does not encounter the exposed edge of the lap first.
- 6) Transverse membranes shall be extended 4" to 6" beyond each pavement edge. Cracks which connect with transverse joints shall be sealed first with a minimum of 2½" lap at the intersection with the joints. Laps will be permitted in both transverse and longitudinal membranes with a minimum overlap of 3".
- 7) The membrane shall be installed straight and wrinkle free with no curled or uplifted edges. Any wrinkles over 3/8" in width shall be slit and folded down.
- 8) Apply membrane from low to high pitch to provide maximum drainage efficiency.

**ROLLING IN, REPAIR, AND OVERLAY (HOT APPLIED or SELF ADHESIVE)****Rolling In:**

The membrane must be rolled in to ensure 100% surface contact between the membrane and the tack coat. If air pockets occur during rolling, membrane should be slit to allow air to escape, and rerolled to tack the membrane.

**Repair:**

Repairs can be accomplished by cutting loose membrane with a razor knife and tacking new repair material.

Removal and replacement of material that is damaged after placement is the responsibility of the contractor.

**Asphalt Hot Mix Overlay:**

Hot mix overlay can follow placement of membrane within 30 minutes. A 3" minimum overlay thickness is recommended, with multiple lifts. Asphalt tack coat is required prior to overlay. The use of vibratory rollers over Polyguard membrane is not recommended.

**General:**

Air/pavement temperatures during installation should allow adequate tack.

**LIMITATIONS WITH POLYMER MODIFIED OVERLAYS:**

If a Superpave polymer modified type of overlay is being used, and paving temperatures of >300 ° F will be used, contact Polyguard Products for technical information. Paving temperatures over 300 ° F can liquify tack coat under hot applied material. Also, polypropylene backings are subject to high shrinkage at >300 ° F.