



## POLYGUARD NW-75 MEMBRANE SPECIFICATION FOR WATERPROOFING BRIDGE DECKS AND PARKING GARAGES

### PART 1 - GENERAL

#### DESCRIPTION:

The work in this section includes requirements for membrane waterproofing of bridge decks, parking garages and parking lots.

Related work specified elsewhere:

- Concrete Work: Section \_\_\_\_\_
- Prefabricated Expansion Joints: Section \_\_\_\_\_
- Sealants and Caulking: Section \_\_\_\_\_
- Drains: Section \_\_\_\_\_

#### SUBMITTALS:

- Submit the following samples for approval:
  - 1) One square foot sample of **POLYGUARD NW-75 MEMBRANE**
  - 2) One pint of **POLYGUARD 650 RC LIQUID ADHESIVE** (when applicable for use on the project).
  - 3) One tube of **POLYGUARD 650 MASTIC**
  - 4) One quart of **POLYGUARD LM95 LIQUID MEMBRANE**
- Submit copies of manufacturer's product description, product usage, and product application for all materials proposed for use on the project.

#### DELIVERY AND HANDLING:

**Delivery:** Materials should be delivered in manufacturer's original, unopened packaging with labels attached.

**Handling:** All materials must be handled in a manner to prevent damage. Any material damaged must be removed from the project area and replaced with new material.

**POLYGUARD** products must be handled in accordance with **POLYGUARD PRODUCTS, INC.** guidelines. **LIQUID ADHESIVES** and **MASTICS** are solvent based liquids and are flammable. No open flames, sparks, or smoking should be allowed in the immediate area.

#### JOB CONDITIONS:

**POLYGUARD WATERPROOFING MATERIALS** should only be applied under proper weather conditions. **NW-75 MEMBRANE** should be applied at temperatures of 45°F, and above.

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



Polyguard is ISO 9001 certified since 1996.

All concrete must be cured a minimum of seven days and be dry to the touch before applying **POLYGUARD WATERPROOFING**. Lightweight structural concrete must be dried a minimum of 14 days prior to waterproofing application.

All drains, curbs, and protrusions must be in place before waterproofing application begins.

Surfaces to receive the **POLYGUARD WATERPROOFING SYSTEM** materials must be smooth, dry, and free of dust, dirt, loose aggregate or other foreign materials. Surfaces must be free of voids, spalled areas, loose aggregate, and sharp protrusions. Surfaces must be free of contaminants from release agents that contain wax, oil, silicone, or pigment.

The concrete surface must resemble a troweled texture. A float finish is generally acceptable. Broom finished concrete is not acceptable.

## PART 2 - PRODUCTS

### MATERIALS:

**POLYGUARD NW-75 WATERPROOFING MEMBRANE** is a self-adhering membrane consisting of rubberized asphalt laminated to a nonwoven polypropylene fabric to form a minimum 65 mil membrane. **NW-75 MEMBRANE** is packaged in boxed rolls of the following dimensions: 12" x 200', 24" x 100' and 48" x 50', with each roll covering 200 square feet of surface. The membrane is delivered on a silicone release liner that serves as a carrier. The release liner is removed prior to application of the membrane. **NW-75 MEMBRANE** is completely cold-applied and requires no special adhesives or heating equipment.

**NW-75 MEMBRANE** will meet the following physical properties:

PROPERTY/UNIT	TEST METHOD	MARV - ENGLISH	MARV - METRIC
Thickness	ASTM D 1777	70 mils	.1777 mm
Tensile Strength	ASTM D 4632	50 lbs.	.22 kN
Grab Tensile Strength	ASTM D 4632	246 lbs.	.889 kN
Puncture Resistance	ASTM E 154	200 lbs.	.889 kN
Permeance - Perms	ASTM E 96 (Method B)	0.1 max	1.09 kN
Elongation	ASTM D 4632	80%	80%
Pliability at low temperatures *	ASTM D 146 (Modified)	No cracks	No cracks

\* **POLYGUARD NW-75** is manufactured to the specifications of D.O.T's. Most material shipped meets a -15° F specification. However, if an agency has specified a higher or lower pliability specification, the product will be produced with a formulation meeting those requirements.

**650 RC LIQUID ADHESIVE** will meet the following physical properties:

PROPERTY/UNIT	TEST METHOD	MARV - ENGLISH	MARV - METRIC
Color	-	Black	Black
Specific Gravity	ASTM D 891	.92	.92
Flash Point	ASTM D 56	105° F	41° C

**650 MASTIC** will meet the following physical properties:

PROPERTY/UNIT	TEST METHOD	MARV - ENGLISH	MARV - METRIC
Color	-	Black	Black
Specific Gravity	ASTM D 891	1.12	1.12
Flash Point	ASTM D 56	45° F	7° C

**LM 95 LIQUID MEMBRANE MIXTURE** will meet the following physical properties:

PROPERTY/UNIT	TEST METHOD	MARV - ENGLISH	MARV - METRIC
Description	-	2 Component Urethane Waterproofing – mix on job	
Solids Content	ASTM D 1754	100%	100%
Viscosity @ 80° F (27° C) Brookfield @ 20 RPM	ASTM D 2196	61	61

## INSTALLATION:

### PRIMING:

- 1) Never apply **Polyguard 650 RC Liquid Adhesive** to wet or frozen surfaces.
- 2) When substrate is ready, apply **Polyguard 650 RC Liquid Adhesive** at a rate of 400 square feet per gallon (250 square feet on milled surfaces) using lambswool roller, brush, squeegee, or spray apparatus.
- 3) Allow primer to dry until tack-free.

- 4) Prime only the area which can be covered with membrane in the same working day. Areas primed and not covered with membrane within 24 hours should be reprimed. Smoothness and porosity of the concrete will affect coverage rate.
- 5) Do not apply liquid adhesive at heavier rates than recommended. Excessive material build-up will delay drying and membrane application.

**POLYGUARD NW-75 MEMBRANE INSTALLATION - HORIZONTAL SURFACES:**

- 1) At curbs, posts or projections, apply a double layer of **NW-75 MEMBRANE** going out at least 6 inches onto the horizontal, and 2" up the vertical face. Roll membrane firmly into the vertical/horizontal interface to eliminate any air pockets.
- 2) **POLYGUARD NW-75 MEMBRANE** should be applied to the primed surface starting at the low point and working to the high point using a shingling technique.
- 3) Side laps should be a minimum of 3 inches and end laps a minimum of 6 inches.
- 4) The entire membrane should be firmly rolled with a rubber tired asphalt roller or hand roller with a soft surface weighing at least 75 pounds. This will insure excellent adhesion and minimize air pockets between the substrate and membrane.
- 5) At posts or projections, apply either a double layer of **NW-75 MEMBRANE** going out at least 6 inches in all directions.
- 6) At drains, apply a double layer of **NW-75 MEMBRANE**.
- 7) Inadequately lapped seams and damaged areas should be patched with small sections of **POLYGUARD NW-75 MEMBRANE**. The patch area should extend at least 6 inches beyond the defect.
- 8) Fishmouths and severe wrinkles should be slit, flaps overlapped, and repaired as above.
- 9) All inside and outside corners shall be treated with 12 inch strips. The field membrane should be placed over the corner treatment. It is recommended that inside corners have a minimum ¾ inch fillet of **POLYGUARD LM 95 LIQUID MEMBRANE** or latex modified cement mortar.
- 10) Double ply all non-working joints or cracks over 3/16" width with a 6" to 12" piece of **NW-75 MEMBRANE**.
- 11) **POLYGUARD 650 MASTIC** should be applied to all edges, overlapping seams, and end terminations. The recommended application rates for **650 MASTIC** is:
  - \* 100 linear feet of a 1" wide bead per gallon, if using material from 5 gallon pails, or...
  - \* at the rate of 65 linear feet per 30 ounce tube, when applying a ½" wide bead.**POLYGUARD 650 MASTIC** should then be worked into the seam with a trowel to insure proper sealing.
- 12) Membrane shall not be left exposed to ultra-violet rays for an extended period (over 30 days) prior to paving.
- 13) A tack coat of asphalt or asphalt emulsion is applied prior to the bituminous overlay.
- 14) It is recommended that the bituminous overlay be not less than 2.0" in thickness after compaction.
- 15) The use of vibratory rollers over Polyguard membrane is not recommended.