



650 MEMBRANE SPECIFICATION FOR INSULATED CONCRETE FORMS (ICF)

PART 1 – GENERAL

DESCRIPTION:

Work in this section includes requirements for membrane waterproofing of expanded polystyrene foundation walls. The extent of the waterproofing is indicated on tech drawings.

Related work specified elsewhere:

Concrete Work: Section _____

Drainage Boards: Section _____

SUBMITTALS:

- Submit the following samples for approval.
 1. One square foot sample of **POLYGUARD 650 MEMBRANE**
 2. One pint of **POLYGUARD SHUR-TAC WATERBASE LIQUID ADHESIVE**.
 3. One tube of **POLYGUARD 650 MASTIC**.
 4. One square foot sample of protection board. (**Low Flow™** or other acceptable protection system)
- Submit copies of manufacturer's product description, product usage, and product application for all materials proposed for use on the project.

DELIVERY AND HANDLING:

Materials should be delivered in manufacturer's original, unopened packaging with labels attached. 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 MASTICS are solvent based and are combustible. 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. **POLYGUARD 650 MEMBRANE** should preferably be applied at temperatures of 50°F, and above.

Surfaces to receive the **POLYGUARD WATERPROOFING SYSTEM** materials must be smooth, dry, and free of dust, dirt, loose aggregate or other foreign materials. Note that dust from UV exposure may form on the polystyrene surface, and should be removed with a broom and hose. Dust will prevent adhesion of the membrane.

Surfaces must be free of voids and sharp protrusions. Surfaces must be free of dust, dirt, loose aggregate or other foreign materials. Note that dust from UV exposure may form on the polystyrene surface, and should be removed with a broom and hose. Dust will prevent adhesion of the membrane.

Surfaces must be free of voids and sharp protrusions. Surfaces must be free of contaminants that contain wax, oil, silicone, or pigment.

PART 2 – PRODUCTS

POLYGUARD 650 WATERPROOFING MEMBRANE is a self-adhering membrane consisting of 56 mils of rubberized asphalt laminated to 4 mils of polyethylene to form a minimum 60-mil membrane. **650 MEMBRANE** is available in 4' x 50' (1.22m x

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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.

15.2m) and 39.36" x 61' (1m x 18.59m). The membrane is delivered on a silicone release sheet. The release sheet is removed prior to application of the membrane. **650 MEMBRANE** will meet the following physical properties:

Property/Unit	Test Method	Typical Value
Film Color		White/Black
Membrane Thickness		60 mils
Tensile Strength - Membrane - (psi)	ASTM D-412 (<i>modified Die C</i>)	325
Elongation, ultimate failure of rubberized asphalt	ASTM D-412	600%
Permeance, (<i>grains/sq.ft./hr/in.Hg</i>)	ASTM E-96 (<i>Method B</i>)	.05
Cycling Over Crack, @ -15°F	ASTM C-836	No Effect
Peel Adhesion (<i>lbs./in. width</i>)	ASTM D-1000	10.0
Overlap Bond (<i>lbs./in. width</i>)	ASTM D-1000	8.0
Pliability - 180° bend over 1" mandrel -15°F	ASTM D-146	No Effect
Puncture Resistance - Membrane - (<i>Blunt instrument</i>) lbs.	ASTM E-154	40
Resistance to Hydrostatic Head (<i>Head ft. of water</i>)	Following Procedure of Draft 4 ASTM Subcommittee D08.22 on Waterproofing Systems	250
Exposure to Fungi in Soil - 16 Weeks	GSA-PBS 07115	No Effect
Water Absorption - % by weight	ASTM D-570	.1

INSTALLATION:

COOL WEATHER:

1. Due to jobsite conditions **SHUR-TAC WATERBASE LIQUID ADHESIVE** is required by **Polyguard**. **Polyguard** will not accept any liability for non-primed applications.

Application is limited to 50° and rising due to the liquid adhesive being a "water" based product. If application is being applied in temperatures lower than 50° you may try the following steps to assist adhesion. However, **Polyguard** does not accept liability for under 50° applications. The membrane must be kept in a warm area until used. Warming the adhesive surface with a hot air blower, such as a salamander will also assist cool weather application. Walls may be tented with polyethylene and a salamander used to warm the area before application of the membrane in extreme cold.

MEMBRANE INSTALLATION – VERTICAL SURFACES

1. All footing/wall corners shall have a minimum ¾ inch fillet of **LIQUID MEMBRANE 95** or latex modified cement mortar. Prime all surfaces to be waterproofed with the **650 WATERPROOFING MEMBRANE** with the **POLYGUARD SHUR-TAC WATERBASE LIQUID ADHESIVE** at a coverage rate of 300-400 sq. ft. per gallon. Treat inside and outside corners either with 12-inch strips or a 12-inch wide by 90 mil thick application of **POLYGUARD LIQUID MEMBRANE**. The field membrane should be placed over the corner treatment.
2. **POLYGUARD 650 - LT LIQUID ADHESIVE** can be used on exposed concrete surfaces such as footers, regardless of temperature. **Do not use 650 LT LIQUID ADHESIVE (Solvent Base) on polystyrene surfaces.**
3. **POLYGUARD WATERPROOFING MEMBRANE** should be applied vertically in sections of 8 feet in length or less. On walls higher than 8 feet, apply two or more sections with the upper section overlapping the lower.
4. Side laps should be a minimum of 2 ½ inches and end laps should be a minimum of 6 inches.
5. Use a hard roller or firmly press in the material as it is placed on the vertical surface.
6. All terminations should receive a bead of **POLYGUARD 650 MASTIC**. The bead should be troweled to a flat surface approximately 1/8 inch thick by ¾ inches wide. The **MASTIC** should be worked into cut edge termination. When using **MASTIC** in pails, it must be mixed periodically so that solvents do not rise to the top.
7. Inadequately lapped seams and damaged areas should be patched with small sections of **POLYGUARD MEMBRANE**. The patch area should extend at least 6 inches beyond the defect.
8. Fishmouths and sever wrinkles should be slit, flaps overlapped, and repaired as above.
9. Protection course of **POLYGUARD Low Flow™ PROTECTION AND DRAINAGE SYSTEM**, 1" expanded polystyrene, or ¼ inch extruded polystyrene, shall be placed on foundation walls and other vertical surfaces to protect the surface from damage. Drainage is recommended where high ground water occurs.
10. Backfill should be a type readily compactable upon deposit. It should be placed against the protection board in 6" to 8" compacted layers to avoid vertical settlement. Backfill should not have a high water content that would cause the soil to shrink upon drying. Mechanical compaction in horizontal layers should be used to achieve these results if necessary. Avoid sharp impact to the protection board when backfilling.
11. **DO NOT** expose **POLYGUARD WATERPROOFING MEMBRANE** above grade. **POLYGUARD WATERPROOFING MEMBRANE** has limited resistance to UV exposure.