

SECTION 07 14 00

FLUID-APPLIED WATERPROOFING

04/06

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM C 836

(2006) High Solids Content, Cold
Liquid-Applied Elastomeric Waterproofing
Membrane for Use With Separate Wearing
Course

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Fluid-applied membrane; G, AE

Membrane primer; G

Elastomeric sheet; G

Solvent; G

Protection board; G, AE

Bond breaker; G

Submit material description and physical properties, application details, and recommendations regarding shelf life, application procedures, and precautions on flammability and toxicity.

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver waterproofing materials in manufacturer's original, unopened containers, with labels intact and legible. Containers of materials covered by a referenced specification number shall bear the specification number, type, and class of the contents. Deliver materials in sufficient quantity to continue work without interruption. Store and protect materials in accordance with manufacturer's instructions, and use within their indicated shelf life. When hazardous materials are involved, adhere to special precautions of the manufacturer, unless precautions conflict with local, state, and federal regulations. Promptly remove from the site materials or incomplete work adversely affected by exposure to moisture or

freezing. Store materials on pallets and cover from top to bottom with canvas tarpaulins.

1.4 ENVIRONMENTAL CONDITIONS

Apply materials when ambient temperature is 40 degrees F or above for a period of 24 hours prior to the application and when there is no ice, frost, surface moisture, or visible dampness on the substrate surface. Apply materials when air temperature is expected to remain above 40 degrees F during the cure period recommended by the manufacturer. Moisture test for substrate is specified under paragraph entitled "Moisture Test." Work may be performed within heated enclosures, provided the surface temperature of the substrate is maintained at a minimum of 40 degrees F for 24 hours prior to the application of the waterproofing, and remains above that temperature during the cure period recommended by the manufacturer.

PART 2 PRODUCTS

2.1 FLUID-APPLIED MEMBRANE

ASTM C 836.

2.2 MEMBRANE PRIMER

As recommended by the fluid-applied membrane manufacturer unless specifically prohibited by the manufacturer of the fluid-applied membrane.

2.3 SEALANT

As specified in Section 07 92 00 JOINT SEALANTS.

2.4 SEALANT PRIMER

As specified in Section 07 92 00 JOINT SEALANTS.

2.5 BACKING MATERIAL

Premolded, closed-cell, polyethylene, or polyurethane foam rod having a diameter 25 percent larger than joint width before being compressed into joint. Provide bond breaker of polyethylene film or other suitable material between backing material and sealant.

2.6 BOND BREAKER

As recommended by the fluid-applied membrane manufacturer. Bond breaker shall not interfere with the curing process or other performance properties of the fluid-applied membrane.

2.7 ELASTOMERIC SHEET

Preformed; as recommended by the fluid-applied membrane manufacturer. Bond strength between the fluid-applied membrane and the preformed elastomeric sheet shall be a minimum of one psi when tested in accordance with ASTM C 836.

2.8 ELASTOMERIC SHEET ADHESIVE

As recommended by the elastomeric sheet manufacturer.

2.9 PROTECTION BOARD

Premolded bitumen composition board, 1/8 inch minimum thickness or other composition board compatible with the fluid-applied membrane.

PART 3 EXECUTION

3.1 PREPARATION

Coordinate work with that of other trades to ensure that components to be incorporated into the waterproofing system are available when needed. Inspect and approve surfaces immediately before application of waterproofing materials. Remove laitance, loose aggregate, sharp projections, grease, oil, dirt, curing compounds, and other contaminants which could adversely affect the complete bonding of the fluid-applied membrane to the concrete surface.

3.1.1 Flashings

Make penetrations through sleeves in concrete slab watertight before application of waterproofing. After flashing is completed, cover elastomeric sheet with fluid-applied waterproofing during waterproofing application.

3.1.2 Cracks and Joints

Prepare visible cracks and joints in substrate to receive fluid-applied waterproofing membrane by placing a bond breaker and an elastomeric slip sheet between membrane and substrate. Cracks that show movement shall receive a 2 inch bond breaker followed by an elastomeric sheet adhered to the deck. Nonmoving cracks shall be double coated with fluid-applied waterproofing.

3.1.3 Priming

Prime surfaces to receive fluid-applied waterproofing membrane. Apply primer as required by membrane manufacturer's printed instructions.

3.2 SPECIAL PRECAUTIONS

Protect waterproofing materials during transport and application. Do not dilute primers and other materials, unless specifically recommended by materials manufacturer. Keep containers closed except when removing contents. Do not mix remains of unlike materials. Thoroughly remove residual materials before using application equipment for mixing and transporting materials. Do not permit equipment on the project site that has residue of materials used on previous projects. Use cleaners only for cleaning, not for thinning primers or membrane materials. Ensure that workers and others who walk on cured membrane wear clean, soft-soled shoes to avoid damaging the waterproofing materials.

3.3 APPLICATION

Over primed surfaces, provide a uniform, wet, monolithic coating of fluid-applied membrane, 60 mils thick, plus or minus 5 mils by following manufacturer's printed instructions. Apply material by trowel, squeegee, roller, brush, spray apparatus, or other method recommended by membrane manufacturer. Provide a uniform coating of the thickness specified. Where possible, mark off surface to be coated in equal units to facilitate proper

coverage. At control joints, prepared cracks, flashing, and terminations, carry membrane over preformed elastomeric sheet in a uniform 60 mil thick, plus or minus 5 mils, wet thickness to provide a monolithic coating. If membrane cures before next application, wipe previously applied membrane with a solvent to remove dirt and dust that could inhibit adhesion of overlapping membrane coat. Use solvent recommended by the membrane manufacturer, as approved.

3.3.1 Work Sequence

Perform work so that protection board is installed prior to using the waterproofed surface. Move material storage areas as work progresses to prevent abuse of membrane and overloading of structural deck.

3.3.2 Protection Board

Protect fluid-applied membrane by placing protection board over membrane at a time recommended by the membrane manufacturer. Protect membrane application when protection board is not placed immediately. Butt protection boards together and do not overlap.

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