

# 1.2.3 Flat and Low Pitched Roofs

## Architectural Specifications for application over Rigid Insulation

### SECTION 07120 FLUID APPLIED WATERPROOFING (OVER RIGID INSULATION)

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Fluid applied flexible acrylic roofing system.
- B. Rigid insulation.

##### 1.2 RELATED SECTIONS

- A. Section 03300 - Cast in place Concrete:  
Roof Decking
- B. Section ( ):  
Roof Decking.
- C. Section ( ):  
Drain flashing flanges.
- D. Section ( ):  
Roof Penetrations.

##### 1.3 REFERENCES

- A. ASTM C578 - Pre-formed Cellular Polystyrene Insulation.
- B. ASTM C728 - Perlite Thermal Insulation Board.
- C. ASTM D2370 - Test Method for Tensile Properties of Plastics.
- D. ASTM D1204 - Test Method for Linear Dimensional changes of Non-rigid Thermoplastic. Sheeting or Film at Elevated Temperature.
- E. ASTM G26 - Practice for Operating Light Exposure Apparatus (Xenon Arc Type) With and Without Water for exposure of Non Metallic Surfaces.
- F. ASTM E96 - Water Vapor Transmission of Materials.
- G. FM4470 - Wind Uplift Resistance.
- H. ASTM E108 - Test Methods for Fire Test of Roof Coverings.

##### 1.4 SUBMITTALS

- A. Shop Drawings:
  - 1. Indicate tapered insulation layout and fastening pattern.
  - 2. Indicate special joint or termination conditions and conditions of interface with other materials.
- B. Product Data:
  - 1. Provide data for rigid insulation material.
  - 2. Provide data for surface condition, flexible flashings, joint cover sheet, and joint and crack sealants, with temperature range for application of waterproofing membrane.
- C. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

##### 1.5 QUALIFICATIONS

- A. Applicator: Company specializing in performing the work of this section approved by manufacturer.
- B. Manufacturer: Company shall have been in business and have experience in manufacturing these products for a minimum of 15 years.

##### 1.6 REGULATORY REQUIREMENTS

- A. Products: V.O.C. Requirements shall be less than 90 gram/liter.

##### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in manufacturer's unopened and undamaged containers bearing the following information:
  - 1. Name of manufacturer
  - 2. Name of contents and products code
  - 3. Net volume of contents
  - 4. Lot or batch number
  - 5. Storage temperature limits
  - 6. Shelf life expiration date
  - 7. Mixing instructions and proportions of contents
  - 8. Safety information and instructions
- B. Store and protect materials from damage and weather in accordance with manufacturer's instructions.
- C. Store materials at temperatures between 40°F and 90°F. Keep out of direct sunlight.
- D. Support stored material containers on pallets and cover with tarpaulin tied to bottom of pallets.

##### 1.8 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply if ambient temperatures are expected to fall below 45°F or if rain is expected before the application has time to cure.

##### 1.9 WARRANTY

- A. Provide ten year manufacturer's warranty.

#### PART 2 PRODUCTS

##### 2.1 MANUFACTURER

- A. Sealoflex, Inc  
2520 Oscar Johnson Dr.  
Charleston, SC 29405  
Phone: (843) 554-6466  
(800) 770-6466  
Fax: (843) 554-6458

##### 2.2 MEMBRANE COMPOUND MATERIAL

- A. Waterproofing Material: Sealoflex three-stage, fabric reinforced, flexible, acrylic coating; liquid applied in successive stages to form one continuous, seamless watertight membrane; 45 mil minimum cured total system thickness; comprised of the following:
  - 1. Surface primer for metals: waterborne acrylic metal primer, Metal Etch Primer™.
  - 2. Base and Saturation Coats: Sealoflex Pink® (highly flexible water based acrylic emulsion coating).
  - 3. Fabric: Sealoflex, polyester, nonwoven, stitch bonded, and heat-set fabric.
  - 4. Fabric: Sealoflex, Deck Fabric™ polyester, nonwoven fabric.
  - 5. Finish Coat: Sealoflex Finish Coat™ (ultraviolet light resistant blend of highly flexible waterbased acrylic co-polymer resin coating). Color as selected from manufacturers standard colors

## SEALOFLEX INC.

### CORPORATE OFFICES

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### LIMITED WARRANTY

Sealoflex warrants its products to be free of manufacturing defects and that they will meet Sealoflex's current published physical properties when applied in accordance with Sealoflex's directions. There are no other warranties by Sealoflex of any nature whatsoever, expressed or implied, including any warranty of merchantability of fitness for a particular purpose in connection with this product. Sealoflex Inc. shall not be liable for damages of any sort, including remote or consequential damages, resulting from any claimed breach of any warranty whether expressed or implied, including any warranty of merchantability of fitness for a particular purpose or from any other cause whatsoever.

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### B. Cured Membrane Characteristics:

PROPERTY	TEST	RESULT
Tensile Strength	ASTM D2370	3109 psi
Elongation	ASTM D2370	61%
Dimensional Stability	ASTM D1204	<0.44% change
Weathering	ASTM G26	No effect on physical properties after 3600 hours
Moisture Vapor	ASTM E96	3.2 grain/hr./sq.ft
Wind Uplift	FM 4470	Meets class 1-255
Fire Rating	ASTM E108	Class A

### 2.3 INSULATION BOARD MATERIALS

- Roof Insulation: ASTM C578, Type II, tapered expanded polystyrene composite insulation, Class A fire rating; laminated to 1/2" perlite board complying with ASTM C728.
- Configuration: Factory tapered to a slope of not less than [1/4"/ft. (2%)] [1/2"/ft. (4%)]. Provide starter and filler blocks as required to provide the total thickness of insulation necessary to meet the specific slope and thermal conductance.
- Joints: Factory fabricated consisting of 2 diagonally cut boards or one board shaped to provide the required slope.
- Identify each piece of tapered insulation board by color or other identity coding system, allowing the identification of different sizes of tapered insulation board required to complete the roof insulation system.

### 2.4 ACCESSORIES

- Fasteners: Hardened penetrating fasteners or screws approved by insulation manufacturer; of sufficient length to penetrate structural deck; capable of withstanding and uplift pressure of 90 psf.
- Plates: 20 gage flat steel not less than 4" diameter, zinc coated, formed to prevent dishing.
- Adhesive Sealant: Sealothane NS™ single component polyurethane sealant.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- Verify substrate surfaces and site conditions are ready to receive work.
- Verify deck is supported and secure.
- Verify deck is clean, free of gravel and dust, waves, or projections, properly sloped.
- Verify deck surfaces are dry and free of snow or ice.
- Verify roof openings, curbs, pipes, sleeves, ducts and vents through roof are solidly set.

### 3.2 PREPARATION

- Protect adjacent surfaces not designated to receive waterproofing.
- Do not apply waterproofing to surfaces unacceptable to manufacturer.

### 3.3 INSTALLATION - INSULATION

- Mechanically fasten insulation to deck in accordance with manufacturer's installation instructions to meet requirements of local building codes for wind uplift.
- Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- Apply no more insulation than can be covered with waterproofing on the same day.
- Waterproof joints in insulation in accordance with waterproofing manufacturer's instructions.

### 3.4 WATERPROOFING APPLICATION

- Priming: Apply surface primer to all metal surfaces
- Install cant strips at interval corners: Install metal drip edge on outside perimeter, using adhesive sealant.
- Apply 6" wide strip of base coat, fabric, and saturation coat over cracks and non-working joints.
- Apply base and saturation coats at a total rate of 40 sq.ft./gal.
- Apply base coat to the entire area. Embed fabric directly into the coating while still wet. Immediately follow with saturation coat to cover fabric. Overlap adjacent runs of fabric 3" minimum. Allow to dry.
- Continue waterproofing material up vertical surfaces minimum 3".
- Apply finish coat at a coverage rate of 70 sq.ft./gal.
- Seal items projecting through waterproofing material watertight.
- Apply waterproofing system to minimum 45 mil total cured thickness.

### 3.5 CLEANING

- Clean unscheduled surfaces receiving waterproofing in accordance with manufacturer's instructions.

### 3.6 PROTECTION OF FINISHED WORK

- Protect finished waterproofing from weather until cured.

## END OF SECTION

**IMPORTANT NOTE:** Always check our website, [www.sealoflex.com](http://www.sealoflex.com) to determine if the printed literature you are reading is the most current version available