

SECTION 07530

FULLY ADHERED THERMOPLASTIC SHEET ROOFING

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NOTE TO SPECIFIER: Single-ply thermoplastic membranes can only be used at reroofing projects with structural concerns.

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PART 1 GENERAL

1.01 SUMMARY:

A. Single-ply thermoplastic membrane roofing system fully adhered with heat welded seams including necessary accessories.

B. Related Sections:

- 1. 03342 - Lightweight Insulating Concrete.
2. 06100 - Carpentry.
3. 07210 - Building Insulation.
4. 07600 - Flashing and Sheet Metal.

1.02 REFERENCES AND CODES

A. Florida Building Code (FBC), including FBC - Roofing Application Standards (RAS), and FBC - Test Application Standards (TAS).

B. Miami-Dade County Product Control.

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NOTE TO SPECIFIER: Florida Department of Education (DOE) requires roof deck systems, including membranes, to be tested as an assembly to comply with SSTD 12-99.

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C. Florida Department of Education (DOE).

D. Uplift requirements based on the basic wind velocity pressures for the project according to American Society of Civil Engineers (ASCE) 7-98.

- 1. Comply with calculations, signed and sealed by a Florida registered professional engineer, establishing wind velocity pressure values for the specific project

according to ASCE 7-98 using a wind speed of 146 mph, exposure category "C", and a wind load importance factor of 1.15.

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*NOTE TO SPECIFIER: Insert required FM wind uplift classification, in the following paragraph E, as determined by ASCE 7-98 using a wind speed of 146 mph, exposure category "C", and with a wind importance factor for educational buildings of 1.15.*

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- E. Factory Mutual requirements for Class I rated assembly and FM 1-\_\_\_\_ uplift classifications as determined by ASCE 7-98.
- F. American Society for Testing and Materials (ASTM):
  - 1. D6754-02 Standard Specification for Ketone Ethylene Ester Based Sheet Roofing.
  - 2. D4434-87 Standard Specification for Poly (Vinyl Chloride) Sheet Roofing.
  - 3. E108-96 Test Methods for Fire Tests of Roof Coverings.
- G. Roofing manufacturer's specifications.
- H. National Roofing Contractors Association (NRCA) - Roofing and Waterproofing Manual.
- I. Sheet Metal and Air Conditioning Contractors' National Association (SMACNA): Architectural Sheet Metal Manual, latest edition.
- J. Underwriters Laboratories UL 790.

1.03 WARRANTY

- A. Contractor shall furnish the Board a 5 year written warranty, beginning at Substantial Completion, signed by Roofing applicator, covering materials and quality of work for entire "Roofing System", including repair and replacement of flashing and other roofing components deemed faulty or in disrepair by A/E during warranty period. This warranty shall include all other work performed by the contractor described in other sections, including but not limited to, caulking and sealants, sheet metal, insulation, and roofing accessories.
  - 1. Such items deemed faulty or in disrepair shall be

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repaired at no cost to the Board.

- 2. Definition of faulty components or roofing in disrepair includes but is not limited to:
  - a. Blisters in roofing.
  - b. Cracks or ridging in roofing membranes.
  - c. Delamination, shears, or tears in membrane.
  - d. Defects in the quality of work or materials.
  - e. Leaks of any kind.

B. Manufacturer shall furnish the Board a 20 year written warranty, beginning at Substantial Completion, signed by manufacturer's authorized representative for repair and replacement period and terms:

- 1. No dollar limit on warranty.
- 2. Single source responsibility.
- 3. Definition of faulty components or roofing in disrepair includes but is not limited to:
  - a. Blisters in roofing.
  - b. Cracks or ridging in roofing membranes.
  - c. Delamination, shears, or tears in membrane.
  - d. Defects in the quality of work or materials.
  - e. Leaks of any kind.

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*NOTE TO SPECIFIER: Edit the following paragraph C to suit project conditions.*  
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C. Warranty shall be for roofing membrane over lightweight insulating concrete deck.

1.04 MAINTENANCE

A. Extra Materials: At project completion, Contractor shall furnish 100 square feet minimum of thermoplastic sheet roof patching materials to M-DCPS Maintenance Department - Roofing Section at no additional cost.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Fully Adhered Thermoplastic Sheet Roofing:

1. Sarnafil Incorporated: Sarnafil.
2. Seaman Corporation: FiberTite.

## 2.02 MATERIALS

- A. Use cold adhesives according to manufacturer's instructions. Hot asphalt is not allowed.
- B. Traffic Pads: Same material as membrane roofing of 0.080" minimum thickness.
- C. Use coated metals for flashings according to manufacturer's instructions.
- D. Provide metal roof vents on lightweight concrete roof decks at a rate of 1 vent per 900 square feet according to roofing system manufacturer's recommendations. Specify vent pattern. Cut vent holes to structural surface. Ballard JL-10 by JIMCO Products, one way, insulated, spun aluminum vent, or accepted equivalent.
- E. Provide term bar at vertical flashing areas according to RAS.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Installation shall be according to manufacturer's latest published application procedures and as specified.

END OF SECTION