

SECTION 07225 - EPS BOARD ROOF DECK INSULATION

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Tapered EPS board roof deck insulation system for use as an acceptable and recommended substrate for project roofing system.

1.02 REFERENCES

- A. American Society for Testing & Materials (ASTM): C578-87a preformed, Cellular Polystyrene Thermal Insulation Spec for.
- B. The Society of the Plastics Industry, Inc. (SPI): ACCU-R EPS Program for product quality control and labeling program.
- C. Factory Mutual Research Corporation (FMRC)
 - 1. Loss Prevention Data Sheet I-28, current edition.

1.03 SYSTEM DESCRIPTION

- A. Description: EPS tapered roof deck insulation product specifically manufactured and recommended by manufacturer for compatibility with project roofing system for R-value and other physical properties indicated herein when tested in accordance with ASTM C578.

1.04 SUBMITTALS

- A. Product Data: Submit manufacturer's product data for specific EPS board roof deck insulation proprietary products affirming products do not contain chlorofluorocarbon (CFC) or hydrochlorofluorocarbon (HCFC).
- B. Samples: Submit three samples, 12" x 12" x 1" minimum, each specified EPS insulation product, identified with SPI ACCU-R quality assurance program label.
- C. Tapered Insulation Shop Drawings: Submit tapered EPS insulation shop drawings indicating layout, minimum and maximum thickness, slope direction, and placement sequence.

1.05 QUALITY ASSURANCE

- A. SPI ACCU-R Program: Comply with the quality assurance program of The Society of the Plastics Industry, Inc. (SPI) ACCU-R EPS program for appropriate testing, inspection, and review of product production practices for compliance with ASTM C578 requirements.
- B. Insurance Underwriter Requirements: Comply with owner's insurance underwriter's requirements for EPS roof deck insulation product for application with project roofing system.
- C. Factory Mutual Research Corporation (FMRC) Requirements: Comply with requirements for EPS roof deck insulation application with project roofing system.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Storage: Store and protect EPS roof deck insulation prior to installation from direct sunlight exposure and from weather to ensure insulation is dry when installed.

1.07 WARRANTY

- A. Manufacturer's Product Warranty: Submit manufacturer's standard warranty form for EPS board insulation R-value when tested for conformance with ASTM C578. This warranty is in addition to, and not a limitation of other rights Owner may have under Contract Documents.
 - 1. Warranty Period: 20 years from Date of Substantial Completion.
 - 2. Beneficiary: Issue warranty in the legal name of project Owner.
 - 3. Warranty Acceptance: Owner is sole authority who will determine acceptance of warranty document.

PART 2 - PRODUCTS

- A. Tapered EPS Board:
 - 1. Thickness 3" Minimum.
 - 2. Slope: 1/8"/LF

2.01 INSULATION MATERIAL

A. Material Standard: Comply with ASTM C578 for EPS board roof insulation.

1. Type II.

2.02 ROOF INSULATION BOARD

A. Molded EPS Board Insulation: Rigid, closed cell, lightweight, thermal insulation formed by the composition of hydrogen and carbon atoms in a closed mold to comply with ASTM C578-87a for type indicated as follows:

1. Type II: 1.35 pcf minimum density, R-value of 4.55 and 4.17 at 40 degrees F and 75 degrees F (4.4 degrees C and 23.9 degrees C), respectively.

PART 3 - EXECUTION

3.01 INSULATION

A. General: Install EPS board insulation in single or multiple layers to achieve required R-value, extending EPS insulation over entire roof deck surface to be installed, cutting and fitting around projections and obstructions. Form cant strips, crickets, and tapered areas for positive drainage of roofing system.

B. Insulation Board Joints: Stagger EPS board insulation joints in one direction for each course. For multiple layers, stagger joints in both directions between courses with no gaps to form a complete thermal envelope.

C. Exposure: Do not install more EPS insulation in a day than can be covered with roofing membrane before end of work day or before start of weather conditions which can damage EPS insulation.

D. Adhered Single-Ply Membrane Re-Roof: Install EPS board insulation over roof deck fully adhered and mechanically secured to deck substrate.

E. Install boards with FM 60 fasteners at a rate of 1 fastener per 2 sq. ft. Provide fastener in each corner typical.

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