

SECTION 07210

REFLECTIVE INSULATION AND RADIANT BARRIER

Specifier Notes: This section covers Fi-Foil RBI Shield reflective bubble insulation intended as a multipurpose reflective insulation and radiant barrier for roofs, floors, slabs, and walls.

Consult Fi-Foil for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Reflective insulation and radiant barrier.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 06110 - Wood Framing.
- B. Section 07260 - Vapor Retarders.
- C. Section 07270 - Air Barriers.
- D. Section 09110 - Metal Furring Systems.

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 1224 - Reflective Insulation for Building Applications.
- B. ASTM D 3310 - Determining Corrosivity of Adhesive Materials.
- C. ASTM E 84 - Surface Burning Characteristics of Building Materials.
- D. ASTM E 96 - Water Vapor Transmission of Materials.
- E. Federal Specification HH-I-1252B - Reflective, Thermal Cellulosic Fiber Insulating Board.

1.4 SUBMITTALS

- A. Comply with Section 01330 - Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions. Indicate compliance with material requirements.
- C. Samples: Submit manufacturer's sample, minimum 6 inches square.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying material name and manufacturer.
- B. Storage: Store materials in a clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Fi-Foil Company, PO Box 800, Auburndale, Florida 33823. Toll Free (800) 448-3401. Phone (863) 965-1846. Fax (863) 967-0137. Web Site www.fifoil.com. E-Mail custserv@fifoil.com.

2.2 REFLECTIVE INSULATION AND RADIANT BARRIER

- A. Reflective Insulation and Radiant Barrier: Fi-Foil RBI Shield reflective bubble insulation.
- B. Description: 4 mil film, 5/16 inch double bubble with facing on both sides.
- C. Compliance:
 - 1. ASTM C 1224.
 - 2. Federal Specification HH-I-1252B.
- D. Facing: [Foil on both sides] [Foil on one side and white polyethylene on other side].
- E. Testing:
 - 1. Water Vapor Performance, ASTM E 96: 0.00.
 - 2. Flammability, ASTM E 84:
 - a. Facing: Foil/Foil.
 - 1) Flame Spread Rating: 16.
 - 2) Smoke Developed Rating: 23.
 - 3) Category: Class A.
 - b. Facing: Foil/White Polyethylene.
 - 1) Flame Spread Rating: 0.
 - 2) Smoke Developed Rating: 10.

- 3) Category: Class A.
- 3. Contact with Steel Corrosivity, ASTM D 3310: None.
- 4. Pliability, ASTM C 1224, Section 6.2.6.2: None.
- 5. Thermal Performance:
 - a. Emissivity: 0.03 to 0.04.
 - b. Reflectivity: 96 to 97 percent.
- 6. Puncture Resistance: 60.05 psi.
- 7. R-Value, Based on Heat Flow Down and Includes Lower Air Film:
 - a. Drape Over Purlins With 1 Inch Airspace:
 - 1) Foil/Foil Facing: R-10.
 - 2) Foil/White Polyethylene Facing: R-6.5.
 - b. Attach to Bottom of 6 Inch or 8 Inch Purlin:
 - 1) Foil/Foil Facing: R-16.
 - 2) Foil/White Polyethylene Facing: R-12.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive reflective insulation and radiant barrier. Notify Architect if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 INSTALLATION

- A. Install reflective insulation and radiant barrier in accordance with manufacturer's instructions at locations indicated on the drawings.
- B. Seal joints in reflective insulation and radiant barrier with integrated tape tab or with manufacture approved foil or white poly tape.
- C. Replace damaged material as directed by Architect.

3.3 PROTECTION

- A. Protect reflective insulation and radiant barrier from damage during construction.

END OF SECTION