

SECTION 15250

2 Hour Rated Shaft Alternative for Air Distribution Systems

Part 1 - GENERAL

1.01 SUMMARY

This section specifies material and equipment to provide a 2-hour fire-resistive rated duct enclosure for air distribution systems.

1.02 CODES AND STANDARDS

- A. The following published specifications, standards, or tests apply to flexible, fire rated duct wrap systems in this section:
1. NFPA 101, 92A, 92B
 2. International Organization for Standardization (ISO)
 3. International Building Code (IBC)
 4. International Mechanical Code (IMC)
 5. National Building Code of Canada
 6. ASTM E-119 Standard Test Methods for Fire Tests of Building Construction and Materials
 7. ISO 6944 - 1985 Edition, Fire Resistance Tests for Ventilation Air Ducts
 8. ASTM E-84, UL/ULC 723 Standard Test Method for Surface Burning Characteristics of Building Materials
 9. ASTM E-814 Standard Test Method for Fire Tests of Through-Penetration Fire Stops
 10. ASTM E-518 Standard Test Method for Thermal Resistance
 11. ASTM C-411 Standard Test Method for Hot Surface Performance of High-Temperature Thermal Insulation

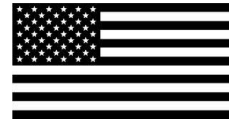
NOTE: The Authority Having Jurisdiction has final responsibility for approving equipment, materials, procedures, and performance requirements for their respective jurisdiction.

1.03 SYSTEM DESCRIPTION

- A. A lightweight (6 pcf maximum), non-asbestos, bio-soluble, high temperature, inorganic, noncombustible, foil encapsulated insulation blanket. The duct wrap system shall be a tested and listed system evaluated for a 2-hour fire resistance rating on an air distribution duct assembly. Testing to be conducted by a nationally recognized testing laboratory.
- B. Performance Requirements:
1. Single layer system for two hour fire rating.
 2. 2-hour fire resistive enclosure assembly tested per ISO 6944 - 1985 Edition
 3. Firestop system, tested per ASTM E-814, 2-hour F and T Ratings

1.04 SUBMITTALS

- A. Submit product data sheet and installation instructions showing system performance and Code compliance.



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1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original unopened packages, clearly marked with manufacturer's name, product designation, manufacturer's lot numbers and appropriate third party classification listings.
- B. Store in a covered dry environment.

PART 2 - PRODUCT

2.01 MANUFACTURERS

- A. Unifrax I LLC, Tonawanda, NY - FyreWrap® Elite® 1.5 Duct Insulation
- B. Approved equal

2.02 MATERIALS

- A. A flexible, fully encapsulated duct wrap material to provide 2-hour fire resistive enclosure assembly per ISO 6944 - 1985
- B. A lightweight, 1.5" thick, 6pcf, flexible, inorganic, non-asbestos, noncombustible, bio-soluble core insulation blanket.
- C. Blanket insulation must maintain a 2012°F (1100°C) operating temperature
- D. Blanket fiber materials must be tested per EU regulatory requirements, Directive 97/69/EC for bio-solubility, and verified by an independent laboratory.
- E. Provide firestop sealants, tape, insulation pins, clips, banding and other components per manufacturer's instructions to ensure the installation complies with the complete tested system and corresponding Design Listing(s).

PART 3 - EXECUTION

3.01 PREPARATION

- A. Inspect and verify that ductwork has been tested and installed properly before applying duct wrap material.
- B. Inspect and verify that all surfaces are smooth, dry, clean and free from dust, debris, or other loose materials. Surfaces must be dry before the application of duct wrap materials.

3.02 INSTALLATION

- A. Install duct wrap system in accordance with manufacturer's installation instructions.