## SECTION 15250

Fire and Smoke Protection
Ventilation Air Duct Insulation

## Part 1 GENERAL

## 1.01 SUMMARY

A. This section specifies material and equipment to provide a 2-hour fire-resistive ventilation duct assembly.

## 1.02 CODES AND STANDARDS

A. The following published specifications, standards, tests, or recommended methods of trade, industry, or governmental organizations apply to work in this section:
    1. International Organization for Standardization (ISO 6944)
    2. International Code Council (ICC)
    3. Uniform Mechanical Code (UMC)
    4. Uniform Building Code (UBC)
    5. International Mechanical Code (IMC) section 506 commercial grease ducts and exhaust equipment; section 507 commercial kitchen hoods, 2000 edition.
    6. NFPA 101 Life safety code
    7. ASTM E-84 Standard Test Method for Surface Burning Characteristics of Building Materials
    8. ASTM E-814 Standard Test Method for Fire Tests of Through-Penetration Fire Stops
    9. ASTM C-411 Standard Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation
    10. ASTM E-136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 Cº
    11. ASTM E-119-95 Standard Test Methods for Fire Tests of Building Construction and Materials
    12. ASTM C-518-91 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus

## 1.03 SYSTEM DESCRIPTION

A. A lightweight, non-asbestos, bio-soluble, high temperature, inorganic foil encapsulated, or foil on one side insulation blanket. The duct wrap system shall be a listed system evaluated for a 2-hour fire resistance rating on a ventilation air duct assembly.

B. Performance Requirements:
    1. Single Layer Systems:
        i. 2-hour fire resistive enclosure assembly per ISO 6944

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

## 1.04 SUBMITTALS

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

## 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. ETS Schaefer Corporation, Macedonia, OH
B. Approved equal

## 2.02 MATERIALS

A. Nominal 2" thick blanket material at 8 PCF to provide 2-hour fire resistive enclosure assembly per ISO 6944.
B. An inorganic, non-asbestos, bio-soluble blanket material.
C. Blanket insulation must maintain a 2300ºF (1259ºC) operating temperature
D. Foil encapsulated, or foil on one side.
E. Blanket fiber materials to be non-carcinogen and soluble in the lung tissue.
F. Provide Firestop sealants, tape, insulation pins, clips, banding and other components as per manufacturer's instructions to provide fully functioning zero clearance to combustibles grease duct system.

# 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.