

SECTION 07210 SPRAYED THERMAL INSULATION

PART 1 - GENERAL

- 1.1 RELATED WORKS AND SECTIONS
 - a) Section 07200 – Building Insulation
 - b) Section 09800 – Acoustical Treatments
- 1.2 WORK INCLUDED: Provide all labor, materials and equipment necessary to provide a complete installed application of sprayed thermal insulation applied to areas indicated on the drawings and described herein.
- 1.3 QUALIFICATIONS OF APPLICATORS: All firms of applicators performing the Work of this Section must be approved by the manufacturers of the sprayed thermal material and shall also have been in business for a minimum period of three (3) years.
- 1.4 SAMPLES: If requested, provide samples, minimum 12" x 12" of sprayed insulation bonded to a piece of rigid board.
- 1.5 MANUFACTURER'S LITERATURE: Copies of the manufacturer's literature, clearly indicating conditions of acceptance and methods of applications shall be available on site before, and during, period of application of Work of this Section.
- 1.6 DELIVERY: Materials to be delivered to the site in original labeled and unopened packages.
- 1.7 STORAGE: Materials to be stored on site in a warm, dry place and either on a concrete floor or a wood platform.
- 1.8 ENVIRONMENTAL CONDITIONS
 - a) Work on this Section shall only be performed under the conditions stated in the manufacturer's printed application instructions.
 - b) Arrange for natural ventilation to properly dry the insulation material during and subsequent to its application.
- 1.9 PATCHING: All patching and repairing of sprayed thermal insulation due to cutting by other trades shall be performed under this Section and paid for by the trade performing the cutting.
- 1.10 PROTECTION
 - a) Provide adequate protection to adjacent surfaces from being sprayed by means of drop cloths, polyethylene sheets, with necessary taping.
 - b) Close off and seal any ductwork in areas where sprayed insulation is being applied.
- 1.11 MANUFACTURER'S REPRESENTATIVE: Allow the manufacturer's representative full access to the site.

PART 2 - PRODUCTS

- 2.0 MATERIALS
 - a) Spray-applied materials shall be MONOGLASS Spray-On White Fiber conforming to ASTM E-136-82 using MONOGLASS Liquid Bonding Adhesive manufactured by Monoglass Incorporated.
 - b) MONOGLASS Spray-On shall not contain asbestos, free crystalline silica or combustible fibers, and shall exhibit the following properties:

PROPERTY	TEST METHOD	RESULTS
Fire Hazard Classification	ASTM E84-79:	Flame Spread = 0 Smoke Developed = 0 Fuel Contribution = 0
Non-Combustibility	ASTM E-136, ISO 1182-90 & CAN 4-S114-78	Non-Combustible
Air Erosion	ASTM E859	No Mass Loss
Smolder Resistance	CGSB 51-GP-36P	Passed: 0.4% mean weight loss
Vibration Resistance Type 1	CGSB 51GP-11M	Passed: 0.02% mass loss
Dry Density	ASTM D-1622-83	3.0 pounds/cubic foot
Thermal Conductivity	ASTM C-518	K-Factor .25, R-Value 4.00/inch
Noise Reduction Coefficient	ASTM C-423-77	NRC = .85, 1.4" on solid backing
	ISO 354	NRC = .75 @ 25mm/1" ^{**} NRC = .95 @ 50mm/2" ^{**}
Fire Gas Toxicity	University of Pittsburgh Protocol	Max CO ₂ 3.5%, Max CO 0.3%
Fungus & Bacterial Resistance	ASTM G-21-90	No Growth

- c) MONOGLASS Bonding Adhesive shall be mixed with fresh, clean water to the exact proportions recommended by the manufacturer.
- d) Manufacturer to provide a listing of applications that have been completed and in place for not less than 10 years.

PART 3 - EXECUTION

3.0 EXAMINATION

- a) Examine all surfaces and conditions to which the Work of this Section is to be applied. Ensure they are adequate to provide a satisfactory application of the specified materials. Report any deficiencies to the design authority.

3.1 PREPARATION

- a) Clean off any dust, loose dirt, foreign material, etc. on surfaces to which the Work is to be applied, which could otherwise create a false bond.
- b) Verify bond requirements and compatibility of all surfaces to receive thermal insulation materials.
- c) Ensure that all ducts, piping, equipment, or other items, which would interfere with application of thermal insulation, are not positioned until thermal insulation work is completed.

3.2 APPLICATIONS

- a) Mix and apply thermal insulation in strict accordance with manufacturer's recommendations.
- b) Spray apply insulation to the underside of the substrate as specified in the site drawings.
- c) Apply insulation to substrate in sufficient thickness to achieve the required thermal (acoustical) value. Board tamp and over-spray with adhesive if required by design authority.

3.3 CLEAN-UP

- a) Remove sprayed thermal insulation from material and surfaces not specifically requiring insulation.
- b) Broom clean work areas affected by the Work of this Section.

3.4 OPTIONS

- a) If required by design authority, board tamp sprayed insulation surface and apply Monoglass adhesive to seal the tamped insulation surface, in accordance with manufacturer's written instructions.
- b) Paint as required, or apply spray insulation using manufacturer's pre-tinted adhesives, as per manufacturers instructions.

3.5 RETURN AIR PLENUMS

- a) For return air plenum applications, finish as in Options 3.4.

END OF SECTION