**PART 1 - GENERAL**
**1.01 WORK INCLUDED**
1. Sprayed cellulose thermal and acoustical insulation.
2. The work to be performed under this section shall include all materials, equipment, labor, and services required to install the sprayed cellulose fiber in accordance with these specifications as indicated on the drawings if applicable.

**1.02 RELATED WORK**
1. All electrical, plumbing, and mechanical penetrations must be completed prior to application. Clips, hangers, supports, sleeves, and other attachments to substrate are to be installed by other trades prior to application.
2. Ducts, conduit, piping, and other equipment shall not be installed until after application of sprayed insulation system.

**1.03 SYSTEMS DESCRIPTION / QUALITY ASSURANCE**
1. The contractor must be approved by the manufacturer.
2. Contractor must use a total system, including fiber and adhesive and tested in sprayed form by Underwriters Laboratories and subject to follow-up inspection. Each bag shall be labeled accordingly. No substitution may be made.
3. Mockup: Apply a representative sample of 100 square feet to be reviewed by the Architect and/or Owner prior to proceeding with work.

**1.04 SUBMITTALS**
1. Submit product data and manufacturer's certificate that the product meets or exceeds specified requirements.
2. Manufacturer's written certification that the product contains no asbestos, fiberglass, or other man-made mineral fibers.

**1.05 DELIVERY, STORAGE, AND HANDLING**
1. Materials shall be delivered in original, unopened containers bearing the name of the manufacturer, product identification, and reference to Underwriters Laboratory testing.
2. Store materials off the ground in a dry location at all times.
3. Protect ThermoBond adhesive from freezing.

**PART 2 - PRODUCTS**
**2.01 ACCEPTABLE MANUFACTURERS**
1. INTERNATIONAL CELLULOSE CORPORATION
   12315 Robin Blvd
   Houston, TX 77045
   713-433-6701 or 800-444-1252
   Fax: 713-433-2029
   www.thermocon.com icc@spray-on.com
2. For approved applicators, contact ThermoCon at 800-444-1252.

**2.02 MATERIALS**
1. ThermoCon Sprayed Thermal and Acoustic Insulation System
2. Color shall be as indicated in Schedule 3.03. Color will affect price.
3. Apply at nominal thickness to provide R-value indicated in Schedule 3.03. Thickness is limited to 3"standard and 5" with written approval from manufacturer.
4. Sprayed material shall meet all standards of performance according to ASTM C1149 Type 1 Self-Supported, Spray-Applied Cellulose Insulation
5. Thermal testing in accordance with ASTM C518
   R value 3.7 per inch
   K-factor .27 per inch
6. Underwriters Laboratories tested and listed according to UL723.
   Flame spread 5
   Smoke developed 0
7. Complies with ASTM Standards
   E859 Air erosion of sprayed fire resistive materials
   E605 Thickness and density of sprayed fire resistive materials
   E736 Field tested cohesion/adhesion of materials
   C423 Sound absorption coefficients
   E413 Classification for rating sound insulation
   E759 Effects of deflection on materials
   C523 Light reflectance of acoustical materials
   E119 Fire test of building construction and materials
   E1042 Classification for acoustically absorbent materials
   E761 Compressive strength
   UMB-80 Shall meet requirements of HUD.
8. NRC rating – install at thickness to achieve a NRC rating as indicated in Schedule 3.03

ThermoCon Sprayed Thermal & Acoustic Insulation ASTM C423 on Solid Backing.*

| Inches | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC |
|---|---|---|---|---|---|---|---|
| 1.00" | 0.10 | 0.29 | 0.70 | 0.98 | 1.01 | 0.98 | .75 |
| 1.50" | 0.19 | 0.51 | 0.88 | 1.06 | 1.08 | 1.00 | .90 |
| 2.00" | 0.33 | 0.64 | 0.98 | 1.10 | 1.12 | 1.00 | .95 |
| 2.50" | 0.51 | 0.84 | 0.98 | 1.07 | 1.11 | 1.01 | 1.00 |
| 3.00" | 0.59 | 0.99 | 1.03 | 1.02 | 1.02 | 1.01 | 1.00 |

*Some values interpolated.

**PART 3 - EXECUTION**
**3.01 INSPECTION**
1. Insulation contractor shall examine all surfaces and report unsatisfactory conditions in writing. The work shall not proceed until unsatisfactory conditions are corrected.
2. Surface to be sprayed shall be inspected prior to application to verify if cleaning, priming, or sealing of surface is required to ensure bonding. Prepare surface accordingly. Kilz primer/sealer/stain-blocker or equal is the recommended primer.
3. All surfaces must be free of dust, dirt, rust, oil, grease, and exotic coatings.
4. Material must be applied at ambient temperature above 40 degrees F. Ambient temperature must remain above 40 degrees F for at least 72 hours after application to aid in the curing / drying process. Application outside of this requirement will void product warranty.

**3.02 INSTALLATION**
1. Equipment, mixing, and application shall be in accordance with manufacturer's application instructions and specification.
2. Provide masking, drop cloths, or other satisfactory covering protection for all surfaces which are not to be sprayed to prevent damage from over-spray.
3. Continuous mechanical or natural ventilation shall be applied to cure sprayed insulation.
4. Protect finished installation under provision of Division 1.

**3.03 Schedule**
Provide a schedule when insulation requires listing by thickness, R-value, NRC value, color, or other attributes.