



DESIGN SOLUTION

CHURCHES



Westminster Chapel was established in 1964 by thirteen families. Since that time they have grown to a membership of over 3,000 with dozens of ministries to meet the needs of the congregation. One entire floor is devoted to its youth ministry and its music. They actually have two auditoriums to assist in this area.

Since many of the productions are performed with live music, exceptional sound control was a must. K-13 was chosen for that reason. Applied at a thickness of 1" to the ceiling, K-13 provided an overall Noise Reduction Coefficient of 0.75. By reducing the reverberation (echo time) in the spaces the musicians can better hear the notes they are playing and thus perform better.

PROJECT

**Westminster Chapel
Bethel, WA**

DETAILS

**K-13® Black
1" Thick
9,000 sq. ft.**

K-13 is available in six standard colors: black, gray, light gray, tan, white and beige. Custom colors are also available to match any interior décor. Arenas, museums, libraries, gyms, worship facilities, and restaurants are just a few of the many projects that benefit from K-13. For more information on how K-13 can improve your new construction or renovation projects, contact International Cellulose Corporation today at **(800) 444-1252** or visit our website at www.spray-on.com.

K-13® Spray On Systems Thermal and Acoustical Insulation Specification Guide

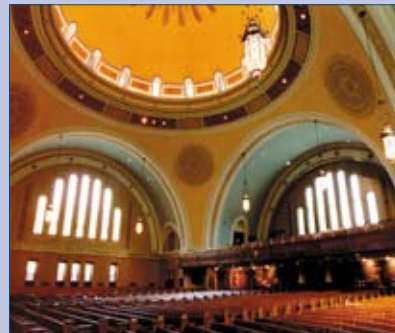
PARTIAL LIST OF SIMILAR PROJECTS



**ST. LEONARD CHAPEL
CENTERVUE, OH**



**ST. JOAN OF ARC
PHOENIX, AZ**



**TEMPLE OHABEI SHALOM
BROOKLINE, MA**



**CHRISTIAN LIFE CENTER
KALAMAZOO, MI**

PART 1 - GENERAL

1.01 Work Included:

- A. 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 and as indicated on the drawings if applicable.
- B. A representative surface of not less than 100 square feet shall be sprayed and approved by the Architect and/or Owner prior to proceeding.

1.02 Related Work:

- A. Clips, hangers, supports, sleeves and other attachments to spray bases are to be placed by other trades prior to the application of sprayed insulation.
- B. Ducts, piping, conduit or other suspended equipment shall not be positioned until after the application of sprayed insulation.

1.03 Systems Description/Quality Assurance:

- A. Contractor must use a total system, encompassing equipment, fiber and adhesive as supplied and tested by the manufacturer. No substitution may be made.
- B. Fibers supplied under this specification shall have each bag coded with the date and lot number of manufacture, and retained samples shall be kept by the manufacturer for not less than one year.
- C. Contractor must be licensed and trained by the manufacturer.

1.04 Submittals:

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

1.05 Product Delivery, Storage and Handling:

- A. Materials shall be delivered in original, unopened containers bearing name of manufacturer, product identification and reference to U.L. testing.
- B. Store materials off ground, under cover and away from damp surfaces and keep material dry at all times.
- C. Protect liquid adhesive from freezing.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturers:

- A. International Cellulose Corporation
12315 Robin Boulevard
Houston, Texas 77045
(713) 433-6701 or (800) 444-1252 FAX: (713) 433-2029

2.02 Materials:

- A. K-13 Spray-On-Systems.
 1. Color shall be as indicated in Schedule 3.03. [Color selection will affect price]
 2. Thermal Resistance values [if applicable]:
Apply at minimum thickness to provide an R-value as indicated in Schedule 3.0.3
 3. Field tested bond strength report per ASTM E-736.
Tested @ > 5 years
Not less than 400 psf
Not less than 600 times its weight @ 1"

4. The sprayed insulation must have been tested in sprayed form by U.L. and have each bag labeled with the reference to U.L. test results according to ASTM E-84/U.L.723:

Tested at a minimum of 5" thickness, Class 1	
Flame Spread	Not To Exceed 5
Smoke Development	Not To Exceed 5

5. Fire Endurance rating greater than or equal to 45 minutes per ULC S101-M89 and British Columbia Building Code 3.1.4.7(3)(B). Minimum thickness 2 1/2"
6. The sprayed insulation must meet appropriate Building Code Requirements.
7. The sprayed insulation must meet ASTM E-1042
8. NRC rating [if applicable]:
Install at a minimum thickness to achieve a NRC rating as indicated in Schedule 3.03
9. Noncorrosive per UMB-80.
10. Bond Deflection per ASTM E-759.
6" Deflection in 10' Span-No Spalling or Delamination
11. Cohesive Strength at time of application per Method WS-2000: >700 Grams

PART 3 - EXECUTION

3.01 Inspection-Preparation-Installation:

- A. The installing contractor shall examine all surfaces and report all unsatisfactory conditions in writing to the General Contractor and Architect. The work shall not proceed until unsatisfactory conditions are corrected.
- B. Provide masking, drop cloths or other satisfactory coverings for all materials/surfaces which are not to receive insulation so as to prevent damage from overspray.
- C. Surfaces to receive spray insulation shall be inspected prior to application to determine if priming/sealing is required to insure bonding and/or to prevent discoloration caused by migratory stains. Prime accordingly.
- D. Installed thickness will be determined as the minimum thickness measured as per ASTM E-605 field test procedure. Thickness(es) shall be as listed in section 3.03 or as indicated on the drawings.
- E. The work shall be coordinated with other trades whose work may be affected or have an effect on the installation of the sprayed cellulose fiber.
- F. Installation, clean-up and curing shall be accomplished according to the manufacturers' recommendations and common construction standards.
- G. Provide natural or mechanical ventilation continuously to properly cure the insulation.

3.02 Protection:

- A. Protect finished installation under provision of section 01500 and 01535.

3.03 Schedule:

- A. **Provide a schedule when insulation requires listing by color, insulation value, NRC values and other attributes.**



**INTERNATIONAL
CELLULOSE
CORPORATION**

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HOUSTON, TX 77045
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Website: www.spray-on.com**

Professionally installed by:

