



PROJECT

Minneapolis Institute of Arts
Minneapolis, MN

ARCHITECT

Michael Graves and Associates
Princeton, NJ

DETAILS

K-13 Lt. Grey
19,500 square feet
Thickness: 3”

The Minneapolis Institute of Arts is a free museum that originally opened its doors in 1915. The initial structure has received several additions over the years including the latest addition in June 2006. The museum showcases various collections including: African and Native American Art, paintings and photographs, sculptures and textiles. Programs in Art History are offered by the Minneapolis Institute of Arts in addition to various youth activities.

International Cellulose Corporation's spray-on system was chosen for its superior thermal and acoustical performance for use in a mechanical room and two loading docks. Mechanical rooms can become very loud with the sounds of the machinery they house. The ringing of machines turning on and off can disrupt activities in the next room as well as above the space. When applied, K-13 creates small pockets of air. These pockets dramatically reduce reverberation (echo) and other ambient noise. With a 3” application of K-13, an impressive NRC of 1.00 was achieved. K-13 can be installed from 3/4” to 5” without mechanical support.



With conditioned spaces above the loading docks, the museum needed excellent thermal protection. With R-values ranging from 3 to 19, K-13 was the perfect choice for the thermal needs of the museum. The versatility of K-13 to conform to any surface configuration eliminates voids, gaps and compressions that can occur with prefabricated insulation. K-13 can be applied to virtually any substrate including: concrete, metal, wood, glass, styrofoam and urethane. This monolithic coating results in the outstanding field performance of K-13.

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

PARTIAL LIST OF SIMILAR PROJECTS

BALLOON MUSEUM
ALBUQUERQUE, NM

CHILDRENS MUSEUM
PITTSBURGH, PA

MUSEUM U505 SUBMARINE EXHIBIT
SCARBOROUGH, IL

MUSEUM OF FINE ARTS
HOUSTON, TX

MUSEUM OF PHOTOGRAPHIC ARTS
SAN DIEGO, CA

NATIONAL D-DAY MUSEUM
NEW ORLEANS, LA

ROSENTHAL CONTEMPORARY ARTS CENTER
CINCINNATI, OH

MUHAMMAD ALI MUSEUM
LOUISVILLE, KY

LONE STAR FLIGHT MUSEUM
GALVESTON, TX

PLANO LIBRARY
PLANO, TX

BUFFALO SCIENCE MUSEUM
BUFFALO, NY

HOMWOOD LIBRARY
BIRMINGHAM, AL

NEW HAVEN LIBRARY
NEW HAVEN, IN

MUSEUM OF NATURAL SCIENCE
HOUSTON, TX

MUSEUM OF PHOTOGRAPHIC ARTS
SAN DIEGO, CA

LSU PAUL HEBERT LAW CENTER LIBRARY
BATON ROUGE, LA

VALLEY RANCH LIBRARY
IRVING, TX

CHILDRENS MUSEUM
PITTSBURGH, PA

NEW HAVEN LIBRARY
NEW HAVEN, IN

SAM HOUSTON MEMORIAL MUSEUM
HUNTSVILLE, TX

LSU PAUL HEBERT LAW
CENTER LIBRARY
BATON ROUGE, LA

Section 07218 K-13 Spray On Systems Specification Guide Rev 02/02

PART 1 - GENERAL

1.01 Section Includes

EDIT ACOUSTICAL WHERE REQUIRED

- A. Sprayed cellulose thermal and acoustical insulation.

1.02 Related Items

- 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.
C. Roof penetrations to be installed prior to application.

1.03 Quality Assurance

- A. Manufacturer must be ISO 9001:2000 Certified.
B. Applicator: Licensed by manufacturer
C. Manufacturer must subscribe to independent laboratory follow-up inspection services of Underwriters Laboratory and Factory Mutual. Each bag shall be labeled accordingly.
D. Mock-up: Apply a representative sample 100 square feet to be reviewed by the Architect and/or owner prior to proceeding.

1.04 Submittals

- A. Submit product data and manufacturers certificate that the product meets or exceeds specified requirements.
B. Manufacturers written certification that product contains no asbestos, fiberglass, or other man-made mineral fibers.
C. Copy of manufacturers ISO 9001:2000 Certification.

1.05 Delivery, Storage and Handling

- A. Deliver in original, unopened containers bearing name of manufacturer, product identification and reference to U.L. testing.
B. Store materials dry, off ground and under cover.
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
www.spray-on.com icc@spray-on.com
B. For approved applicators contact ICC at 800-444-1252

2.02 Materials:

- A. K-13 Spray-On Systems
**COLOR SELECTION WILL AFFECT PRICE
1. Color shall be as indicated in Schedule 3.05
**ADD THERMAL RESISTANCE VALUES IF APPLICABLE
2. Apply at a minimum thickness to provide R values as indicated in Schedule 3.05
3. Comply with ASTM E-736 for field tested bond strength; tested @ > 5 years:
a. Not less than 400 psf
b. Not less than 600 times its weight @ 1"

4. Comply with ASTM E-84/U.L. 723. Tested at a minimum of 5" thickness Class I, Class A

Flame Spread: 5
Smoke Development: 5

5. Comply with local building code requirements.
6. Comply with ASTM E-1042

**EDIT NRC RATING IF APPLICABLE

7. NRC Rating:
a. Install at a minimum thickness to achieve an NRC rating as indicated in the Schedule 3.05.

K-13 Sprayed Thermal and Acoustical Insulation ASTM C-423 on Solid Backing*

	125	250	500	1000	2000	4000	NRC
1.00*	.08	.29	.75	.98	.93	.96	.75
1.00***	.47	.90	1.10	1.03	1.05	1.03	1.00
2.00*	.26	.68	1.05	1.10	1.03	.98	.95
3.00*	.57	.99	1.04	1.03	1.00	1.00	1.00

K-13 Sprayed Thermal and Acoustical Insulation Applied at 1.5" Ribbed Metal Deck*

	125	250	500	1000	2000	4000	NRC
1.50*	.36	.89	1.26	1.07	1.01	1.00	1.05
3.00*	.57	1.04	1.13	.99	.95	.98	1.05

*Some values interpolated

**On Lath

8. Non-corrosive per UMB-80
9. Bond deflection per ASTM E-759: 6" Deflection in 10' span no spalling or delamination.
10. Cohesive strength at time of application per Method WS-2000: >700 grams.

PART 3 - EXECUTION

3.01 Examination

- A. Examine surfaces and report unsatisfactory conditions in writing. Do not proceed until unsatisfactory conditions are corrected.
B. Verify surfaces to receive spray insulation to determine if priming/sealing is required to ensure bonding and/or to prevent discoloration caused by migratory stains.

3.02 Preparation

- A. Provide masking, drop cloths or other satisfactory coverings for materials/surfaces that are not to receive insulation to prevent damage from over-spray.
B. Coordinate installation of the sprayed cellulose fiber with work of other trades.
C. Prime surfaces as required by manufacturers instructions or as determined by examination.

3.03 Installation

- A. Average thickness to achieve NRC value of 0.65 or greater.
B. Install spray applied insulation according to manufacturers recommendations.
C. Cure insulation with continuous natural or mechanical ventilation.
D. Remove and dispose of over-spray.

3.04 Protection

- A. Protect finished surface under provisions of Division 1.

3.05 Schedule

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



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