



DESIGN SOLUTION

LARGEST STADIUM IN THE U.S.



International Cellulose’s light gray K-13 was applied to the impressive University of Michigan Stadium. K-13 added exceptional thermal and acoustical benefits to the largest stadium in the United States and third largest in the world. Sprayed in over 68,000 square feet in the club houses beneath the stadium at 4.5 inches to achieve an R-value of 17, the stadium is appropriately nicknamed “The Big House”, seating 109,901 and featuring some of the most memorable moments in football history. K-13 contributed to the overall success of the “Big House” with its high R-value, sound absorption, durability, and longevity.

K-13 helps to control reverberation by absorbing sound within its fibers. This greatly improves the acoustics in a stadium, convention center or any other occupancy. K-13 is available in six standard colors including, White, Black, Light Gray, Beige, Tan and Gray. Custom colors are also available matching any color you desire.

For more information on how International Cellulose’s K-13 spray-on Insulation or any of our other products could benefit your upcoming project, please call at (800) 444-1252 or visit our website at www.spray-on.com.



PROJECT	University of Michigan Stadium Ann Arbor, MI
DETAILS	K-13 Light Gray 4.5" Thick 68,280 Sq. Ft.
ARCHITECT	HNTB Sports Architecture Division 719 Griswold St., Ste. 620, Detroit, MI 48226

K-13 Comes in Standard & Custom Colors



SIMILAR PROJECTS

COWBOY STADIUM
DALLAS COWBOYS
ARLINGTON, TX

DARRELL K ROYAL
TEXAS MEMORIAL STADIUM
UNIVERSITY OF TEXAS
AUSTIN, TX

INVESCO FIELD AT MILE HIGH
DENVER BRONCOS
DENVER, CO

TCF BANK STADIUM
UNIVERSITY OF MINNESOTA
TWIN CITIES, MN

MEMORIAL STADIUM
UNIVERSITY OF OKLAHOMA
NORMAN, OK

UNIVERSITY OF PHOENIX
ARIZONA CARDINALS
PHOENIX, AZ

QWEST FIELD
SEATTLE SEAHAWKS
SEATTLE, WA

SOLDIER FIELD
CHICAGO BEARS
CHICAGO, IL

GILLETTE STADIUM
NEW ENGLAND PATRIOTS
FOXBOROUGH, MA

K-13[®] Spray On Systems Section 072129 Specification Guide 06/11

PART 1 – GENERAL

1.01 Section Includes

- A. Sprayed cellulose thermal insulation.
- B. Sprayed cellulose 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 have a current listing with ICC.
- B. Manufacturer must be in compliance with the 2006 International Building Code.
- C. Manufacturer must be ISO 9001:2008 Certified.
- D. Applicator: Licensed by manufacturer.
- E. Manufacturer must subscribe to independent laboratory follow-up inspection services of Underwriters Laboratories and Factory Mutual. Each bag shall be labeled accordingly.
- F. Mock-up: Apply a 100 square foot representative sample to be reviewed by the Architect and/or Owner prior to proceeding.

1.04 Submittals

- A. Submit product data that the product meets or exceeds the following specified requirements.
 1. R-Value shall be 3.8 per inch per ASTM C 518.
 2. Bond strength shall be greater than 100 psf per ASTM E 736.
 3. Product shall be Class 1 Class A per ASTM E 84/UL 723.
 4. Non-corrosive per ASTM C 739.
 5. Bond Deflection per ASTM E 759: 6" Deflection in 10' Span - No Spalling or Delamination
 6. Comply with IBC 803.3/2009 IBC 803.10 stibility requirements for interior finishes.
- B. Manufacturer's written certification that product contains no asbestos, fiberglass or other man-made mineral fibers.
- C. Copy of manufacturer's ISO 9001:2008 Certification.
- D. Minimum Fiber Recycled Content to be 75%.
- E. Cannot contain any Urea-Formaldehyde Resins.

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
Email: icc@spray-on.com
www.spray-on.com
- B. For approved applicators contact ICC at (800) 444-1252.

2.02 Materials

- A. K-13 Spray-On-Systems.
 1. Color shall be from Manufacturer's standard color chart.
 2. Comply with local Building Code requirements.
 3. Material to have been tested in accordance with ASTM E 1042. Testing laboratory must be NVLAP accredited.

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 insure 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 protect from over-spray.
- B. Coordinate installation of the sprayed cellulose fiber with work of other trades.
- C. Prime surfaces as required by manufacturer's instructions or as determined by examination.

3.03 Installation

- A. Thickness will be determined as the minimum thickness measured as per ASTM E-605 field test procedure.
- B. Install spray applied insulation according to manufacturer's recommendations.
- C. Install spray applied insulation to achieve an R-Value of ____ (maximum of R 19)
- D. Install spray applied insulation to achieve an overall NRC of ____.

K-13 Sprayed Thermal and Acoustical Insulation ASTM C-423 on Solid Backing*							
Inches	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	NRC
1.00	0.08	0.29	0.75	0.98	0.93	0.96	0.75
1.00**	0.47	0.90	1.10	1.03	1.05	1.03	1.00
2.00	0.26	0.68	1.05	1.10	1.03	0.98	0.95
3.00	0.57	0.99	1.04	1.03	1.00	1.00	1.00

K-13 Sprayed Thermal and Acoustical Insulation Applied at 1.5" Ribbed Metal Deck*							
Inches	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	NRC
1.50	0.36	0.89	1.26	1.07	1.01	1.00	1.05
3.00	0.97	1.04	1.13	0.99	0.95	0.98	1.05

*Some values interpolated

**On lath

- E. Cure insulation with continuous natural or mechanical ventilation.
- F. Remove and dispose of over-spray.

3.04 Protection

- A. Protect finished installation under provision of Division 1.



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www.spray-on.com

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Professionally installed by:



K-13[®] is manufactured with:
Minimum 80% recycled content

PRINTED IN USA 9/11:



10%
TOTAL RECOVERED FIBER
ALL POST-CONSUMER FIBER



Mixed Sources
Product group from well-managed
forests, controlled source and
recycled wood or fiber
www.fsc.org Cert no. SW-COC-001530
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