

## The Custom Spray System

K-13 is the spray-applied insulation tailored to your specific project requirements for insulation (R value), noise reduction (NRC), color, durability, condensation control, texture, and aesthetics. In addition, it usually provides these features at lower installed prices than many common systems such as rigid board and batt insulations, sprayed plasters, and acoustical ceilings.

It is applied to virtually any properly prepared surface configuration of wood, steel, concrete, glass, and other common construction surfaces. K-13 can be sprayed up to five inches thick overhead in one application without mechanical support. Additionally, K-13 serves as the exposed finish requiring no additional materials.

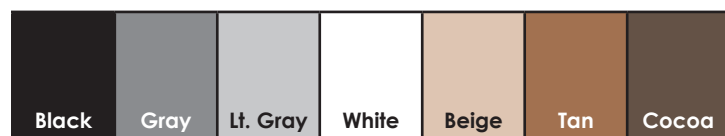
## A Total System: Fiber, Binder, Application

K-13 is a total system of recycled natural fibers, chemical treatment, binding system and application method. The K-13 system begins with specially prepared cellulose fibers that are chemically treated to add resistance to fire, mold and mildew. K-13 is produced in a strict quality controlled manufacturing process.

K-13 is applied by an international network of licensed applicators through approved fiber machines and nozzles for control of the fiber/binder ratio. During application, the K-13 fibers are combined with a patented adhesive. The finished product is a strong, durable monolithic coating of a predetermined thickness. Some surfaces will require priming prior to being sprayed.

## Naturally Tough – Naturally Attractive

With its texture and wide variety of colors, K-13 is especially attractive as a surface finish in new construction as well as renovation projects. Available in seven standard colors, K-13 can also be specified in specially matched custom colors.



Color selection will affect the final price.

## Thermal Performance

K-13 insulates by creating dead air spaces between and within its hollow fibers. Because K-13 fibers are sprayed-in-place, they fill cracks, seams, and voids, forming a monolithic coating over the substrate that reduces air infiltration. Unlike prefabricated insulations, K-13 has no voids or compressed areas to reduce thermal efficiency. The result is a more effective in-place product with exceptionally low heat transfer characteristics.

The patented adhesive utilized in the installation of K-13 adheres to virtually all common construction materials including: metal, wood, concrete, urethane, Styrofoam, and glass. Some surfaces may require pretreatment prior to installing K-13. This unique adhesive provides unequal strength allowing applications of 3/4 inch to over 5 inches providing R-values from 3 to over 19 without mechanical support. For an R-value of up to 38, ICC recommends the K-13 High-R System. For more information about the advantages of the K-13 High-R System, please visit [www.spray-on.com/info/highr](http://www.spray-on.com/info/highr).

For areas such as indoor pools and ice arenas, K-13 aids in condensation control. The proper combination of K-13 and ventilation prevents condensation on metal, concrete and other surfaces. K-13 actually reduces ventilation requirements, saving in both the ventilation equipment investment and operating costs.

## Acoustical Performance

The resilient fibers of K-13 absorb sound energy instead of reflecting it, reducing reverberation time and making speech and music more intelligible. Excessive noise is eliminated with the application of K-13 while greatly improving ambient sound quality in a wide variety of building projects including auditoriums, sports facilities, detention facilities, television and sound studios, convention centers, and parking garages.

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  |
|--------|--------|--------|--------|---------|---------|---------|------|
| 0.63   | 0.05   | 0.16   | 0.44   | 0.79    | 0.90    | 0.91    | 0.55 |
| 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 |
| 1.50   | 0.15   | 0.51   | 0.95   | 1.06    | 0.99    | 0.98    | 0.90 |
| 2.00   | 0.26   | 0.68   | 1.05   | 1.10    | 1.03    | 0.98    | 0.95 |
| 2.50   | 0.41   | 0.84   | 1.05   | 1.07    | 1.02    | 0.99    | 1.00 |
| 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 |
| 2.00   | 0.56   | 0.94   | 1.22   | 1.04    | 0.99    | 0.99    | 1.05 |
| 2.50   | 0.77   | 0.99   | 1.17   | 1.02    | 0.97    | 0.99    | 1.05 |
| 3.00   | 0.97   | 1.04   | 1.13   | 0.99    | 0.95    | 0.98    | 1.05 |

K-13 Sprayed Thermal and Acoustical Insulation Applied to 3" Fluted Metal Deck

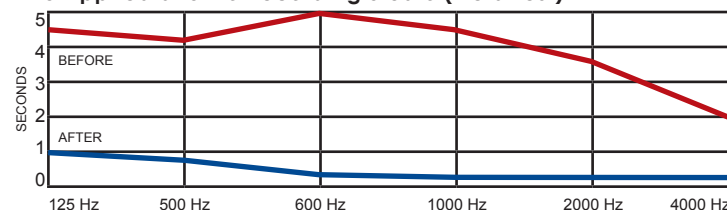
| Inches | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | NRC  |
|--------|--------|--------|--------|---------|---------|---------|------|
| 1.50   | 0.55   | 0.92   | 1.11   | 1.02    | 0.95    | 0.99    | 1.00 |
| 2.75   | 0.69   | 0.98   | 1.17   | 1.03    | 0.97    | 1.04    | 1.05 |

\* Some values interpolated

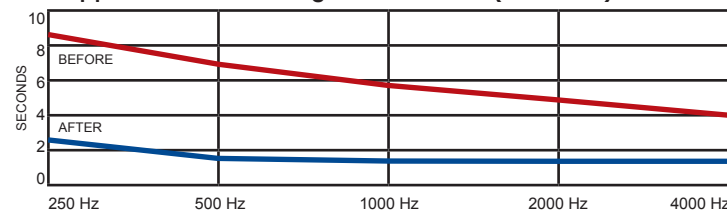
\*\* On Lath

## Sound Results

K-13 Applied at 3" to Recording Studio (Field Test)



K-13 Applied at 1" to Ceiling in Indoor Pool (Field Test)





K-13 is versatile. Typical projects include: Parking Garages, Classrooms, Restaurants, Museums, Warehouses, Airports, Stadiums, Worship Facilities, Open Offices, Auditoriums, Convention Centers, and more.

## Fire Performance Ratings

**K-13 has been rated and approved by Factory Mutual Research Corporation for use in the following categories:**

- **Category I:** As an interior finish material of low fire hazard (Class I Building Material) over noncombustible surfaces not requiring automatic sprinkler protection in and of itself.
- **Category II:** As a protective coating to delay the ignition and reduce the surface burning rate of combustible wood and cellulosic fiber building materials.
- **Category III:** As a protective coating to delay the ignition and reduce the surface burning rate of low melting, combustible cellular plastic building materials and to protect their dimensional stability for a brief period.
- **Category IV:** As a protective coating for building structural steel to supplement automatic sprinkler protection in preventing structural failure temperatures of the steel in high fire hazard occupancies.
- **Category V:** As a protective coating to the underside of Class II insulated steel roof deck construction to sufficiently lower the rate of fuel contribution from the Class II deck components to qualify the construction as Class I allowing automatic sprinkler protection to be omitted where permissible under Factory Mutual Standards.

**These fire ratings are derived from product tests per ASTM standards and are used solely to measure and describe properties of materials and products in response to heat and flame under controlled laboratory conditions. They are not intended to reflect hazards presented by these or any other materials under actual fire conditions.**

## Surface Burning Characteristics

K-13 has a Class 1, Class A flame spread rating per ASTM E-84, UL-723, NFPA-255 and UBC-42.

Flame spread- 5

Smoke developed- 5

Underwriters' Laboratories – Ref. #R5499

## ASTM Standards Compliance

|             |                                    |
|-------------|------------------------------------|
| ASTM C-518  | Thermal Conductivity               |
| ASTM E-84   | Surface Burning Characteristics    |
| ASTM C-423  | Noise Reduction Coefficients       |
| ASTM D-2244 | Light Reflectance                  |
| ASTM E-736  | Bond Strength                      |
| ASTM E-859  | Air Erosion                        |
| ASTM C-739  | Moisture Absorption                |
| ASTM E-90   | Sound Transmission Loss            |
| ASTM E-413  | Sound Transmission Loss            |
| ASTM E-1042 | Acoustical Absorption              |
| ASTM C-1149 | Spray-Applied Cellulose Insulation |

**Test reports available upon request.**

## Miscellaneous Approvals & Specifications

Underwriters Laboratories –  
Classified Code Compliance  
Report UL ER 5499

Corps of Engineers Guide  
Specifications – CE-201.01

Factory Mutual Research –  
Report Nos. 19678, 20399, and  
24703

Miami-Dade county, FL. NOA  
#15-0518.05  
Expires Sept. 4, 2020

Federal Defense Logistics Agency  
Cage Code: ONJU2

Meets California Bureau of  
Home Furnishings Standards

Corps of Engineers Guide  
Specifications – CE-201.01

Resource Conservation and  
Recovery Act

Department of the Navy Guide  
Specifications – NFGS-07218

Federal Specification –  
SS-S-111C

EPA 40 CFR Part 248

Los Angeles – RR-24311

New York – MEA 65-96-M



