

**CSI MasterFormat® Filing:**  
**Division 7: Thermal & Moisture Protection**

- 07 21 00 Thermal Insulation
- 07 21 29 Sprayed Insulation

**Division 9: Finishes**

- 09 81 00 Acoustic Insulation
- 09 81 29 Sprayed Acoustic Insulation
- 09 83 00 Acoustic Finishes
- 09 83 16 Acoustic Ceiling Coating



**MANUFACTURER INFORMATION:**

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

**1. PRODUCT DESCRIPTION:**

The K-13 High-R System is a mechanically supported insulation system for applications of K-13 exceeding 5" thick to meet project requirements for higher R-Values. K-13 **Thermal** and **Acoustical** cellulose insulation used as an insulation/exposed finish for its acoustic and thermal benefits. K-13's monolithic coating absorbs excess noise and provides an **R-value of 3.75** per inch. K-13 has a **Natural Texture** and is available in five standard colors and specially-matched custom colors.

**2. BASIC USE:**

K-13 is typically used as an exposed ceiling finish for its acoustic and thermal benefits. It is appropriate in both interior and covered exterior applications such as parking decks.

**3. MATERIAL COLORS:**

K-13 is available in five standard colors can also be specified in specially-matched custom colors.

**STANDARD COLORS:**



*Color selection will affect the final price.*

**4. SURFACE PREPARATION:**

K-13 adheres to properly prepared substrates and conforms to any ceiling configuration including metal decking, barrel-vaults, concrete "T" corrugated decks, and other complex surfaces. Surfaces to receive K-13 are to be inspected prior to installation to determine if pre-treatment is required.

**5. APPLICATION:**

K-13 is installed by an international network of professional contractors licensed by ICC. These contractors are required to install K-13 using approved equipment, materials, and procedures. Due to the inherent texture of the material and application techniques, the installed material will have thickness variances. Compliance with applicable building codes and project requirements is the responsibility of the user and/or installing contractor.

**SUSTAINABLE CREDIT CATEGORIES:**

**MATERIALS + RESOURCES:**

**RECYCLED CONTENT:** 80% Pre-Consumer  
Natural Based Fibers

**REGIONAL MATERIALS:** Manufactured By International Cellulose Corporation in Houston, TX.

**MATERIAL INGREDIENT REPORTING:** Inventoried to 1,000 PPM in accordance with the HPD Collaborative.

**INDOOR ENVIRONMENTAL QUALITY:**

**INDOOR AIR QUALITY:** UL GREENGUARD Gold Certified  
*May Contribute Towards:*

LEED v4: Indoor Air Quality Assessment

LEED v4: Enhanced Indoor Air Quality Strategies

**THERMAL COMFORT:** K-13 has exceptionally low heat-loss characteristics with an R-Value of 3.7

**ACOUSTICAL PERFORMANCE**

**LOW EMITTING MATERIALS:**

*M1 Classified as a Low Emitting Building Material*  
Compliant With:

LEED v4: Low Emitting Materials

CDHP/ California Section 01350

SCAQMD Rule 1168

CHPS- Acoustical Ceiling

## TECHNICAL DATA:

### ASTM STANDARDS COMPLIANCE

<b>ASTM C 423</b>	Sound Absorption
<b>ASTM C 518</b>	Thermal Conductivity
<b>ASTM C 739</b>	Cellulose Fiber
<b>ASTM C 1149</b>	Spray-Applied Cellulose Insulation
<b>ASTM D 2244</b>	Light Reflectance
<b>ASTM E 84</b>	Surface Burning Characteristics
<b>ASTM E 90</b>	Sound Transmission Loss
<b>ASTM E 736</b>	Bond Strength
<b>ASTM E 759</b>	Bond Deflection
<b>ASTM E 859</b>	Air Erosion
<b>ASTM E 1042</b>	Acoustical Absorption

**ASTM C 518: Thermal Conductivity**  
R-Value: **3.7 PER INCH**

APPLICATION THICKNESS	R-VALUE
1"	3.7
2"	7.4
3"	11.1
4"	14.8
5"	18.5
6"	22.2
7"	25.9
8"	29.6
9"	33.3
10"	37

### ASTM D 2244: Light Reflectance

White: 84+	Tan: 46+
Light Gray: 73+	Gray: 45+
Beige: 71+	Black: 17+

### ASTM E 84: Surface Burning Characteristics

**CLASS 1, CLASS A RATED** per ASTM E-84, UL-723, NFPA-255, & UBC-42

**Flame Spread 5**

**Smoke Development 5**

*K-13 has been rated and approved by Factory Mutual Research Corporation for use in categories: I, II, III, & IV.*

### ASTM E 736: Cohesion/Adhesion - Bond Strength

**Bond Strength** is greater than 100psf

**K-13 MEETS IBC 2015 SECTION 803.12 STABILITY REQUIREMENTS FOR INTERIOR FINISH MATERIALS.**

### ASTM C 423: Sound Absorption

#### K-13 Applied on Solid Backing

Inches	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
<b>.625"</b>	.05	.16	.44	.79	.90	.91	<b>.55</b>
<b>1"</b>	.11	.32	.84	.99	1.01	.98	<b>.80</b>
<b>1.75"</b>	.30	.74	1.14	1.06	.99	.98	<b>1.00</b>
<b>2"</b>	.47	.90	1.06	1.06	1.08	1.07	<b>1.00</b>
<b>3"</b>	.57	.99	1.04	1.03	1.00	.98	<b>1.00</b>
<b>4"</b>	.84	1.06	1.01	1.03	1.00	.98	<b>1.05</b>
<b>5"</b>	.99	.89	1.05	1.03	1.00	1.00	<b>1.00</b>

#### K-13 Applied on 1.5" Metal Deck

Inches	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
<b>1.5"</b>	0.36	0.89	1.26	1.07	1.01	1.00	<b>1.05</b>
<b>3"</b>	0.97	1.04	1.13	0.99	0.95	0.98	<b>1.05</b>

#### K-13 Applied on 2" Metal Deck

Inches	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
<b>1"</b>	0.39	0.63	0.96	0.99	1.04	1.06	<b>0.90</b>
<b>2"</b>	0.55	0.99	1.13	1.06	1.05	1.10	<b>1.05</b>

#### K-13 Applied on 3" Metal Deck

Inches	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	NRC
<b>1.5"</b>	0.55	0.92	1.11	1.02	0.95	0.99	<b>1.00</b>
<b>2.75"</b>	0.69	0.98	1.17	1.03	0.97	1.04	<b>1.05</b>

### MISCELLANEOUS CODE APPROVALS & SPECIFICATIONS

- Underwriters Laboratories – Classified Code Compliance Report UL ER 5499
- Factory Mutual Research – Report Nos. 19678, 20399, and 24703
- Federal Defense Logistics Agency Cage Code: ONJU2
- Federal Specification – SS-S-111C
- Corps of Engineers Guide Specifications – CE-201.01
- Department of the Navy Guide Specifications – NFGS-07218
- EPA 40 CFR Part 248
- Los Angeles – RR-24311
- New York – MEA 65-96-M
- Meets California Bureau of Home Furnishings Standards
- Resource Conservation and Recovery Act

**K-13 DOES NOT CONTAIN SILICA DUST, ASBESTOS, MINERAL OR GLASS FIBERS, OR PCB'S.**

