

K-13[®] Technical Data

March 2003

General Information

K-13 is a high performance acoustical, thermal and Class 1 UL rated insulation material. Spray applied, K-13 conforms easily to complex or irregular surfaces. Engineered for application to virtually any common construction substrate, K-13 forms a strong, durable and resilient bond. This insulation system is ideally suited for both new construction and renovation projects. It is available in white, beige, light gray, tan and black and custom matched colors providing an exceptional range of design options. Typical applications include gymnasiums, arenas, convention centers, indoor pools, detention facilities, parking garages, restaurants, night clubs, entertainment complexes, industrial facilities and recording studios. Additional product information on K-13 and other ICC products is available in Sweet's Catalog (07210/ICC). Product specifications and information are available on the internet @ www.spray-on.com or by contacting ICC.

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. Surfaces to receive K-13 are to be inspected prior to installation to determine if pre-treatment is required. 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.

Acoustical Performance

K-13 SPRAYED THERMAL AND ACOUSTICAL INSULATION APPLIED TO SOLID BACKING¹

THICKNESS ¹	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	.55
0.75"	0.06	0.19	0.55	0.89	0.91	0.93	.65
1.00"	0.08	0.29	0.75	0.98	0.93	0.96	.75
1.25"	0.11	0.40	0.85	1.02	0.96	0.97	.80
1.50"	0.15	0.51	0.95	1.06	0.99	0.98	.90
1.75"	0.19	0.60	1.05	1.11	1.03	0.98	.95
2.00"	0.26	0.68	1.05	1.10	1.03	0.98	.95
2.25"	0.33	0.76	1.05	1.08	1.02	0.98	1.00
2.50"	0.41	0.84	1.05	1.07	1.02	0.99	1.00
2.75"	0.49	0.91	1.05	1.05	1.01	0.99	1.00
3.20"	0.57	0.99	1.04	1.03	1.00	1.00	1.00

K-13 SPRAYED THERMAL AND ACOUSTICAL INSULATION APPLIED TO 1.5" RIBBED METAL DECK¹

THICKNESS ¹	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	NRC
1.62"	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
3.06"	0.97	1.04	1.13	0.99	0.95	0.98	1.05

K-13 SPRAYED THERMAL AND ACOUSTICAL INSULATION APPLIED TO 2" FLUTED METAL DECK¹

THICKNESS ¹	125 HZ	250 HZ	500 HZ	1000 HZ	2000 HZ	4000 HZ	NRC
1.00"	0.39	0.63	0.96	0.99	1.04	1.06	.90
2.00"	0.55	0.99	1.13	1.06	1.05	1.10	1.05

¹Some values interpolated. Listed thicknesses are average.

Fire Performance Ratings

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

Factory Mutual Approvals

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. Minimum installed thickness of 1".
- **Category II:** As a protective coating to delay the ignition and reduce the surface burning rate of combustible wood and cellulosic fiber building materials. Minimum installed thickness of 1".
- **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. Minimum installed thickness of 1¼".
- **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. Minimum installed thickness of 1".
- **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. Minimum installed thickness of 1".

Thermal Insulation Values

Minimum Thickness ² Inches	Average Thickness ² Inches	Maximum Thickness ² Inches	Thermal Insulation Value
1.00	1.25	1.50	4.7
2.00	2.50	3.00	9.4
3.00	3.75	4.50	14
4.00	5.00	6.00	19

²Based on a thickness variance of +/-20%

Miscellaneous Performance

Bond Strength: >200 x weight
Cohesive Strength at time of application: >700 gms
Bond deflection: >=10" in 60" span

K-13® is a registered trademark of International Cellulose Corporation. ICC conducts continuous research and development. Specifications are subject to change without notice.

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