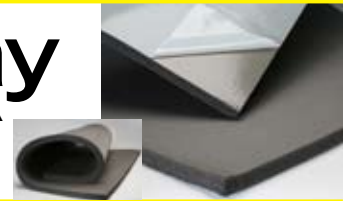


K-Flex Duct™ Liner Gray

Flexible closed cell gray insulation supplied with or without PSA
Designed for the sheet metal and insulation contractor market.



SHEETS AND ROLLS

DESCRIPTION

K-Flex Duct™ Liner Gray Insulation is an environmentally friendly, CFC and HCFC-free, closed-cell, flexible elastomeric thermal and acoustical insulation. It is gray in color and supplied as rolls up to 60" wide in 1/2", 3/4" and 1" thickness*. It is supplied with S2S (Skin 2 Sides - plain) or with a specially formulated scrim-reinforced acrylic adhesive and tear-resistant release liner on the opposite side.

K-Flex Duct™ Liner Gray is non-porous, non-fibrous and resists mold growth. An EPA registered antimicrobial agent is incorporated into the product providing additional protection against mold, fungal and bacterial growth.

K-Flex USA elastomeric insulation products are GREENGUARD® **certified** as low VOC materials, meeting the requirements of the "Children and Schools" classification, the most stringent requirements. Additionally, all K-Flex USA elastomeric insulation products are GREENGUARD® **listed** for mold resistance and meet the "mold resistant" criteria.

Features of PSA: tear and moisture resistant polyolefin easy release liner, continuous reinforcing scrim prevents stretching of insulation and improves peel strength.

APPLICATIONS

K-Flex Duct™ Liner Gray is used to retard heat gain and prevent condensation or frost formation on cold equipment or ducts. It also effectively retards heat loss when used on hot equipment or ducts. K-Flex Duct™ Liner Gray is recommended for applications ranging from -40°F to 200°F (-40°C to 93°C).

K-Flex Duct™ Liner Gray with PSA reduces installation time and minimizes the amount of solvent based contact adhesives required, thus making it ideal for new and retrofit applications. The scrim reinforcement reduces the tendency to stretch the sheet insulation during installation as well as improving the peel strength of the material.

K-Flex Duct™ Liner Gray can be used as both duct and air handling equipment liner.

K-Flex Duct™ Liner Gray thickness has been calculated to control condensation on cold surfaces. Refer to the table on the last page for specific recommendations.

INSTALLATION

K-Flex Duct™ Liner Gray Insulation should be applied to clean, dry ductwork and equipment. Compression joints with adhesive applied should be used on all butt edges. Apply mechanical fasteners in accordance with SMACNA guidelines. K-Flex Duct™ Liner Gray is acceptable for use in duct or plenum applications, meeting the requirements of NFPA 90A and 90B.

RESISTANCE TO MOISTURE VAPOR FLOW

The closed-cell structure and unique formulation of K-Flex Duct™ Liner Gray effectively retards the flow of moisture vapor, and is considered a low transmittance vapor retarder. For most applications, K-Flex Duct™ Liner Gray needs no additional protection.

SPECIFICATION COMPLIANCE

ASTM C534 Type 2 (Sheet), Grade 1
ASTM D1056-00-2C1
ASTM C423/E795 NRC=0.50 at 1" thickness
New York City MEA 186-86-M Vol. IV
USDA Requirements

Flammability:
UL 94-5V Flammability Classification (Recognition No. E300774)
ASTM E 84 Foam Core: 25/50 at 1" and below; PSA: 0/10

Meets requirements of NFPA 90A Sect. 2.3.3 for Supplementary Materials for Air Distribution Systems up to 1" thickness

Meets requirements of UL 181 Sections 11.0 and 16.0 (Mold Growth/Air Erosion)

Meets requirements of ASTM C411 (Test Method for Hot Surface Performance of High Temperature Thermal Insulation)

Key Applications:

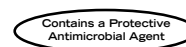
- Schools
- Hospitals
- Hotels
- Public Buildings
- Clean Rooms/Processing

Contact K-Flex USA for references and job stories.

*All thicknesses are nominal.



Made in USA



K-Flex Duct™ Liner Gray

PRODUCT DATA

Foam Core Closed Cell Insulation

Physical Properties

Temperature Range Sheets	-40°F to + 200°F	ASTM C 411	Density	3 pcf to 6 pcf	ASTM D 1622
Color	Gray				ASTM D 3575
Thermal Conductivity (75°F mean)	0.25 BTU-in/hr-ft ² -°F	ASTM C 177	Resistance to U.V. & weather	Good ¹	
Water vapor permeability	<0.06 perm-in	ASTM E 96	Odor	Negligible	
Flexibility	Excellent		% closed cells	>90	
Water absorption %	<0.20	ASTM C 209	Mold resistance	Pass	ASTM C 1338
Ozone resistance	Good				UL 181 / ASTM G 21
Resistance to oil & greases	Good		Air Erosion	Pass 10,000 fpm	UL 181

¹ Where UV sterilizing equipment is used within the air handling system, protect K-Flex Duct™ Liner Gray with an EPA approved coating.

Note: One glued seam per roll; mfg option.
1/2" supplied Skin-Two-Side or Skin-One-Side; mfg option.

Sound Absorption Co-efficients at Frequency

ASTM C423 / E795 Type A Mounting/Sabins/Sq. Ft.

Thickness	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC
1/2" (12mm)	0.01	0.03	0.06	0.13	0.33	0.23	0.15
3/4" (19mm)	0.13	0.13	0.80	0.41	0.58	0.57	0.50
1" (25mm)	0.12	0.25	0.97	0.32	0.52	0.48	0.50

Thickness Recommendations* - To Control Condensation

Sheet Size	Ducts - Tanks - Vessels - Equipment - Metal - Surface Temperature							
	50°F	10°C	35°F	2°C	0°F	-18°C	-20° F	-29°C
Mild Conditions (Max 80°F, 26°C - 50% R.H.)	1/8"	3 mm	1/4"	6 mm	1/2"	13 mm	3/4"	19 mm
Normal Conditions (Max 85°F, 29°C - 70% R.H.)	1/2"	13 mm	3/4"	19 mm	1"	25 mm	1-1/4"	32 mm**
Severe Conditions (Max 90°F, 32°C -80% R.H.)	3/4"	19 mm	1"	25 mm	1-3/4"	44 mm**	2"	51 mm**

*K-Flex Duct™ Liner Gray in thickness noted within the specified temperature ranges will prevent condensation under design conditions defined below. K-Flex Gray is not available in all thicknesses listed.

**Thickness recommendations above 1" can be layered to achieve thickness (subject to code requirement compliance).

Mild: Typical conditions are most air-conditioned spaces and arid climates.

Normal: Maximum severity of indoor conditions seldom exceed 85°F (29°C) and 70% R.H. in United States.

Severe: Generally found in areas where excessive moisture is introduced or in poorly ventilated areas where the temperature may be depressed below the ambient. Under conditions of high humidity, additional thickness of insulation may be required.

NOTE: Thickness recommendations calculated using 0.2575 K-factor (0.25 plus 3% test error allowance)

Sheet "R" Values

R Value	R Value	R Value
1/2"*	3/4"*	1"*
2.0	3.0	4.2

*All sizes are nominal.

Note: "R" values were calculated using a K factor of 0.2575 (0.25 plus 3% test error allowance at 75°F, 24°C mean temp.) and nominal thickness in each case. Lower operating temperatures will result in improved R values. Contact Technical Services for specific recommendations.

Pressure Sensitive Adhesive Properties (PSA)

- Description:** Transfer tape designed for high temperatures (250°F), high performance applications where high tack, conformability, and a thin bond layer are required.
- Construction:** Adhesive: High coat weight modified crosslinked acrylic typified by a high initial tack, plasticizer resistance and high shear strength, resistant to solvents, chemicals, UV light and moisture.
Liner: PE release liner, (75 microns) moisture and tear resistant, easy release.



K-Flex USA - 100 Nomaco Drive - Youngsville, NC 27596 - toll free 800-765-6475 - fax 800-765-6471 - www.kflexusa.com

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