

K-Flex Duct® Liner Gray / Fiberglass Duct Liner Product Comparison

Property	Standard	K-Flex Duct® Liner Gray	Fiberglass Duct Liner
Generic Type	----	Polymeric Blend	Man-made mineral fiber (MMMMF)
Non-fibrous	----	Yes	No
Duct Liner Standard	----	ASTM C1534	ASTM C1071
Cell Structure	----	Closed cell	Open cell
Uniformity	----	Homogenous	Non-homogenous / laminate
Personal Protection Equipment	----	Not Required	Required during installation
Density, pcf	ASTM D1622	3 – 4	1.5 – 3.0
Color	----	Gray	Varies by manufacturer / product
Flexibility	----	Excellent	Excellent
250°F Hot Plate Test	ASTM C 411	Pass	Pass
Max. Recommended Operating Temp., °F	----	220°F	250°F
Thermal Failure** Mode	----	surface char	binder breakdown
Permeability	ASTM E96	< 0.06 perm-in.	75***
Water Absorption	ASTM C209	0.04 % by vol. Non-wicking	Not published**** Wicks
VOC / Formaldehyde	ASTM D5116	“Low Emitting”	Varies by manufacturer / product
UL GREENGUARD® Certified, VOC’s	----	GREENGUARD GOLD (formerly “Children and Schools”)	Varies by manufacturer / product
Cleanability	----	Excellent	Surface treatment dependent
K-factor @75°F mean temp.	ASTM C177, C518	0.25	0.23 – 0.28*****
R-value @ nom. 1”	----	4.2	3.6 – 4.3*****
R-value @ nom. 1.5”	----	6.0	6.0
R-value @ nom. 2”	----	8.0	8.0



TECHNICAL BULLETIN

TA52

Property	Standard	K-Flex Duct® Liner Gray	Fiberglass Duct liner
Flame Spread	ASTM E84	≤ 25	≤ 25
Smoke Developed	ASTM E84	≤ 50	≤ 50
Plenum Rated	NFPA 90A / 90B	Yes	Yes
Mold Growth	UL 181	Pass	Pass
Mold / Bacteria Resistant	----	Yes	Air stream surface only
Antimicrobial Additive	----	Contains an EPA registered antimicrobial agent	Air stream surface only
UL Validated For Mold Resistance	UL 2824/ ASTM D6329	Yes	Varies by manufacturer / product
Exposed Edge Treatment	----	Not Required	All Exposed Edges Must Be Sealed
Air Erosion	UL 181	Pass	Pass
Tested Air Velocity	----	10,000 fpm	6000 fpm
Hospital Use	AIA Guidelines	Unlimited	Limited / special requirements
NRC @ 1” thick	ASTM C423	0.55	0.60 – 0.70*****
	<u>Frequency, HZ</u>	<u>Sound Absorption Coefficients at Frequencies</u>	
	125	0.06	0.09
	250	0.17	0.31
	500	1.06	0.67
	1000	0.32	0.91
	2000	0.67	1.01
	4000	0.54	0.98
	NRC	0.55	0.70*****
STC @ 1” thick	ASTM E90	12 Insulation Only	Not Published
Controls Breakout Noise	----	Yes	No

Effect of exceeding max. temp. limit * Without facer ****Results as high as 6.2% by wt., various products and various test methods used *****Varies based on manufacturer, density, facer / coating and fiber type (short vs. textile) *****JM Permacote Linacoustic Standard

The American Institute of Architects, 1996-1997 “The Guidelines for Design and Construction of Hospital and Healthcare Facilities”

The above data represents actual tested values for K-Flex Duct® Liner Gray. Fiberglass performance data was obtained from manufacturers’ websites and was current at the time of publication.



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