

## **KINETICS® KNM-AL** ACOUSTIC BARRIER MATERIAL

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### **Description and Application**

Fire-resistant noise barrier material for wrapping ducts, valves and pipelines. Designed for indoor or outdoor use, Kinetics KNM-AL noise barrier material reduces risks due to burning, and retards smoke development and flame spread. The material is designed to reduce sound transmission from HVAC duct, process piping, fluid or gas pulsations in pipelines for chemical, petrochemical, and waste water treatment plants and gas utility pressure-reducing stations.

The material is constructed of mass-loaded, limp vinyl with a layer of reinforced aluminum foil facing on one side. The vinyl provides mass and flexibility, while the aluminum adds increased mechanical strength, weatherability, and improved fire retardancy.

The non-lead composition of the material allows for safe handling and easy installation. When applied over an insulation material such as fiberglass, foam, ceramic fiber or mineral wool, Kinetics fire-resistant barrier material is simply cut to length, wrapped around the pipe or duct, and fastened with tape, mechanical fasteners, or bands.

### **Specification**

The barrier shall be constructed of a 0.12" or 0.24" (3 or 6 mm) thick, mass-loaded, limp vinyl sheet bonded to a thin layer of reinforced aluminum foil on one side. The barrier shall have a nominal density of 1.0 or 2.0 psf (4.88 or 9.76 kg/sq. m.).

Product not meeting minimum test standards will not be accepted. Barrier shall have surface burning characteristics as follows: Flame Spread Index: 25 or less, and Smoke Development Index: 450 or less, per ASTM E84-15b (reports using standard test methods prior to ASTM E84-15b will not be accepted). Barrier shall be tested with reinforced foil scrim face exposed to flame.

The barrier shall be model KNM-100AL or KNM-200AL as manufactured by Kinetics Noise Control, Inc.

## Sound Transmission Loss, dB

ASTM E90-09: Tested as free hanging barrier

Product	125	250	500	1000	2000	4000	STC
<b>KNM-100AL</b>	15	17	21	26	31	36	26
<b>KNM-200AL</b>	21	22	27	32	37	42	31

## Insertion Loss (IL)

2.0 psf Model KNM-200AL tested as wrapping over 2" thick, 5 pcf fiberglass around steel rectangular duct.

Product	125	250	500	1000	2000	4000
<b>KNM-200AL</b>	5	9	18	34	37	37

## Fire Test per ASTM E84-15b

### KNM-100AL

Flame Spread- 25  
Smoke Developed- 250  
Class A

### KNM-200AL

Flame Spread- 25  
Smoke Developed- 450  
Class A

### Material Thickness:

KNM-100AL - 0.12" (3 mm)

KNM-200AL - 0.24" (6 mm)

### Material Roll Size:

KNM-100AL - 54" x 60' (1.4 m x 18 m)

KNM-200AL - 54" x 30' (1.4 m x 9 m)

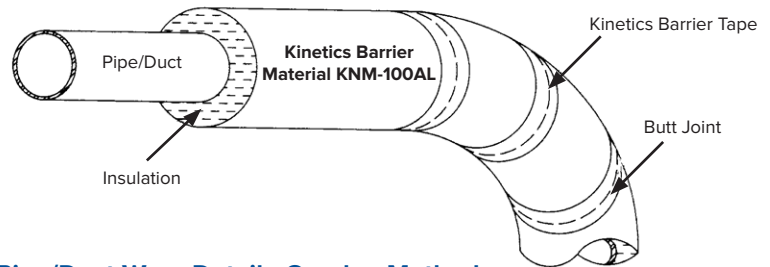
### Service Temperature:

-40°F to 220°F (-40°C to 104°C)

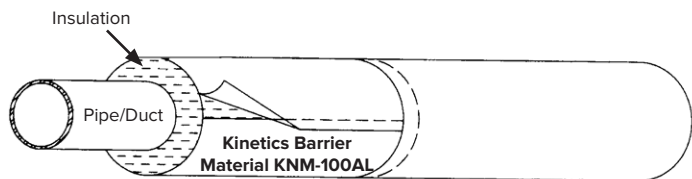
### Corrosion Resistance:

Excellent for most oils, grease, acids, and mild alkalis.

### Pipe/Duct Wrap Detail - Butt Joint Method



### Pipe/Duct Wrap Detail - Overlap Method



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