

**DESCRIPTION**

Linacoustic® RC-HP is a flexible duct liner insulation made from strong glass fibers bonded with a thermosetting resin. The airstream surface is protected with JM's exclusive Reinforced Coating system, which combines our state-of-the-art Permacote acrylic coating with a flexible glass mat reinforcement to provide a smooth and durable airstream surface.

**FACTORY-APPLIED EDGE COATING**

Edge coating is factory applied to the edges of the liner core, ensuring coverage of the leading edges per NAIMA/SMACNA requirements. Shop fabrication cuts may be coated with SuperSeal® Edge Treatment (refer to publication HVAC-202).

**USES**

Linacoustic RC-HP insulation is specifically designed for lining sheet metal ducts in air conditioning, heating and ventilating systems, providing superior acoustical and thermal performance.

**STORAGE**

Linacoustic RC-HP should be kept clean and dry during storage, transport, installation, fabrication, and system operation.

**GENERAL PROPERTIES**

Operating temperature (max.) – ASTM C 411	250°F (121°C)
Air velocity (max.) – ASTM C 1071	6000 fpm (30.5 m/sec)
Water repellency – INDA IST 80.6	≥7
Fungi resistance – ASTM C 1338	Does not breed or promote
Fungi resistance – ASTM G 21	No growth
Bacteria resistance – ASTM G 22	No growth

**STANDARD THICKNESSES AND PACKAGING**

Thickness in	Roll Length		Roll Widths*	
	mm	lineal feet	lineal meters	in mm
1	25	100	31	34 to 72 864 to 1829

\*Available in 1/8" (6.4 mm) increments.

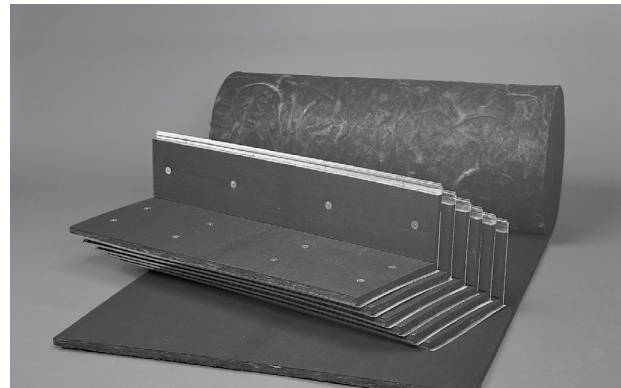
Contact your Regional Sales Office for stock items and availability of special sizes.

**SPECIFICATION COMPLIANCE**

- ASTM C 1071, Type I
- ASHRAE 62
- California Title 24
- MEA 353-93-M
- SMACNA Application Standards for Duct Liners
- NAIMA Fibrous Glass Duct Liner Installation Standard
- State of Washington Building Services Department requirements for emissions of total volatile organic compounds (TVOC) and formaldehyde (CHOH) in accordance with ASTM D 5116
- Canada: CGSB 51-GP-11M and CAN/ULC S102

**GREEN BUILDING ATTRIBUTES**

GREENGUARD® certification is not intended for residential environments. Instead, the certification is intended only for buildings meeting ASHRAE 62.1-2007 commercial building ventilation rates. This certification is proof that the product meets the GREENGUARD Environmental Institute's indoor air quality standards and product emission standards for VOCs.



**SURFACE BURNING CHARACTERISTICS**

**Permacote Linacoustic RC-HP meets the Surface Burning Characteristics and Limited Combustibility of the following standards:**

- Standard/Test Method
- ASTM E 84
- UL 723
- NFPA 255
- NFPA 90A and 90B
- NFPA 259
- CAN/ULC S102

Maximum Flame Spread Index	25
Maximum Smoke Developed Index	50

UL labels supplied on packages when requested on order.

**ADVANTAGES**

**Improves Indoor Building Environment.** Permacote Linacoustic RC-HP improves indoor environmental quality by helping to control both temperature and sound.

**Resistant to Dust and Dirt.** The tough acrylic polymer Permacote coating helps guard against the incursion of dust or dirt into the substrate, minimizing the potential for biological growth.

**Absorbs Disturbing Sound.** Permacote Linacoustic RC-HP has exceptional sound-absorbing properties far exceeding the requirements of ASTM C 1071. Duct-transmitted noise, such as crosstalk and sound energy from air movement and mechanical equipment, is noticeably reduced.

**Will Not Support Microbial Growth.** Permacote coating is formulated with an immobilized EPA-registered protective agent to protect the coating from potential growth of fungi and bacteria.

Permacote Linacoustic RC-HP duct liner meets all requirements for fungi and bacterial resistance. Tests were conducted in accordance with ASTM C 1338 and ASTM G 21 (fungi testing) and ASTM G 22 (bacteria resistance testing). Detailed information is available in Johns Manville fact sheet HSE-103FS.

Note: As with any type of surface, microbial growth may occur in accumulated duct system dirt, given certain conditions. This risk is minimized with proper design, filtration, maintenance and operation of the HVAC system.

**Cleanability.** If HVAC system cleaning is required, the Reinforced Coating airstream surface may be cleaned with industry-recognized dry methods. See the North American Insulation Manufacturers Association (NAIMA) "Cleaning Fibrous Glass Insulated Air Duct Systems."

## LINACOUSTIC® RC-HP

### FIBERGLASS DUCT LINER WITH REINFORCED COATING SYSTEM

## DATA SHEET

**Highly Resistant to Water.** The reinforced coating surface provides superior resistance to penetration of incidental water into the fiber glass wool core.

**Easy to Fabricate.** Permacote Linacoustic RC-HP is lightweight and easy to handle. Clean, even edges can be accurately cut with regular shop tools.

### THERMAL PERFORMANCE

Thickness		R-value		Conductance	
in	mm	(hr•ft <sup>2</sup> •°F)/Btu	m <sup>2</sup> •°C/W	Btu/(hr•ft <sup>2</sup> •°F)	W/m <sup>2</sup> •°C
1	25	4.3	0.76	0.23	1.31

*R-value and conductance are calculated from the material thermal conductivity tested in accordance with ASTM C 518 at 75°F (24°C) mean temperature.*

### SOUND ABSORPTION COEFFICIENTS (TYPE "A" MOUNTING)

Thickness		Sound Absorption Coefficient at Frequency (Cycles per Second) of:						
in	mm	125	250	500	1000	2000	4000	NRC
1	25	0.04	0.24	0.69	0.96	1.05	1.01	0.75

*Coefficients were tested in accordance with ASTM C 423 and ASTM E 795.*

### ISO 9000 CERTIFICATION

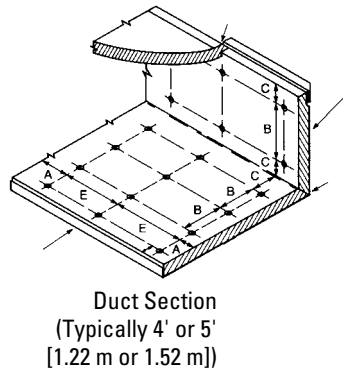
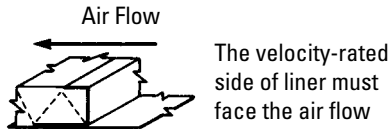
Johns Manville mechanical insulation products are designed, manufactured and tested in our own facilities, which are certified and registered to stringent ISO 9000 (ANSI/ASQC 90) series quality standards. This certification, along with regular, independent third-party auditing for compliance, is your assurance that Johns Manville products deliver consistent high quality.

**LINACOUSTIC® RC-HP**  
FIBERGLASS DUCT LINER WITH REINFORCED COATING SYSTEM

DATA SHEET

**DUCT LINER INSTALLATION**

When velocity exceeds 4000 fpm (20.3 m/sec), use metal nosing on every leading edge. Nosing may be formed on duct or be channel or zee attached by screws, rivets or welds. A metal nosing shall also be installed at the fan discharge and at any point where lined duct is preceded by unlined duct.



Lapped and Butted Corner

All Transverse Edges to be Coated with Adhesive

Alternate Folded Corner

Maximum spacing for fasteners. Actual intervals are approximate.

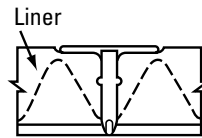
Velocity*	Dimensions							
	A		B		C		D	
	in	mm	in	mm	in	mm	in	mm
0–2500 fpm (0–12.7 m/sec)	3	76	12	305	4	102	18	457
2501–6000 fpm (12.7–30.5 m/sec)	3	76	6	152	4	102	16	406

\*Unless a lower level is set by the listing agency.

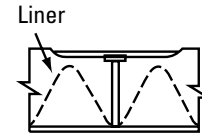
Liner adhered to the duct with 90% minimum area coverage of adhesive. Adhesive shall conform to ASTM C 916.

Shop or field cuts shall be liberally coated with SuperSeal Edge Treatment or approved adhesive.

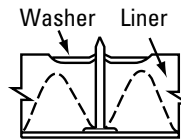
**LINER FASTENERS**



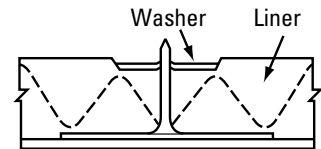
**Type 1**  
Clinched Pin: Integral Head (Impact Applied)



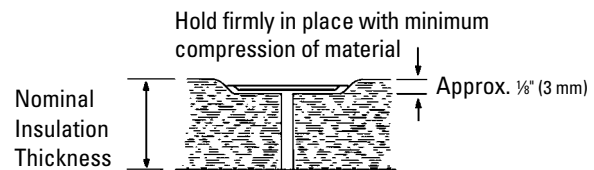
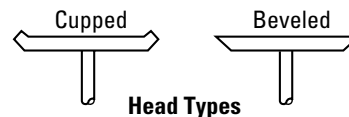
**Type 2**  
Welded Pin: Integral Head



**Type 3**  
Welded Pin: Press-on Head



**Type 4**  
Adhered Pin: Press-on Head



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P.O. Box 5108  
Denver, CO 80217  
800-368-4431  
Fax: 303-978-4661

The physical and chemical properties of Linacoustic® RC-HP fiberglass duct liner with reinforced coating system listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you to ensure current information

**All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit [www2.jm.com/terms-conditions](http://www2.jm.com/terms-conditions) or call (800) 654-3103.**