

Air Handling Systems

Linacoustic® RC

Fiber Glass Duct Liner With Reinforced Coating System

Description

Linacoustic RC 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 airstream surface.

Factory-Applied Edge Coating

Edge coating is factory applied to the edges of the liner core, assuring coverage of the leading edges per NAIMA/SMACNA requirements. Shop fabrication cuts may be coated with the SuperSeal® Duct Butter and edge treatment products (refer to publication AHS-202).

Uses

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

General Properties

Operating temperature (max.) - ASTM C 411	250°F (121°C)
Air velocity (max.) - ASTM C 1071	6,000 fpm (30.5 m/sec)
Water repellency - INDA IST 80.6	≥6
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		Roll Length		Roll Widths for All Thicknesses*					
in	mm	lineal feet	lineal meters	in	mm				
1/2	13	100, 150, 200	31, 46, 61	34 to 36	864 to 914				
1	25	50, 100, 150, 200	15, 31, 46, 61	44 to 48 56 to 60	1118 to 1219 1422 to 1524				
11/2	38	50, 100	15, 31	66 to 72	1676 to 1829				
2	51	50	15						

*Available in 1/4" (6.4 mm) increments.

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

Surface Burning Characteristics

Linacoustic RC meets the Surface Burning Characteristics and Limited Combustibility of the following standards:

Standard/Test Method

- ASTM E 84
- UL 723

Maximum Flame Spread Index Maximum Smoke Developed Index

- NFPA 255
- NFPA 90A and 90B
- NFPA 259
- CAN/ULC S102-M88

UL labels supplied on packages when requested on order.

Specification Compliance

- ASTM C 1071, Type I
- ASTM G 21 and G 22
- ICC Compliant
- California Title 24
- ASHRAE 62
- SMACNA Application Standards for Duct Liners
- NAIMA Fibrous Glass Duct Liner Installation Standard
- Canada: CGSB 51-GP-11M and CAN/CGSB 51.11



Advantages

Improves Indoor Building Environment. Linacoustic RC 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.

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

Linacoustic RC 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."

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

Green Building Attributes

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GREENGUARD®. This certification is proof that the product meets the Environmental Institute's indoor air quality standards for VOCs.



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Installation

Linacoustic RC installation must be performed in accordance with the requirements of the NAIMA Fibrous Glass Duct Liner Standards, or SMACNA HVAC Duct Construction Standard. All transverse edges, or any edges exposed to airflow, must be coated with an approved duct liner coating material, such as Johns Manville SuperSeal® products.

Minimizes Pre-Installation Damage. Linacoustic RC's Reinforced Coating system is highly resistant to damage that can occur during in-shop handling, fabrication, jobsite shipping, and installation.

Easy to Fabricate. Linacoustic RC is light in weight and easy to handle. Clean, even edges can be accurately cut with regular shop tools.

Thermal Performance

Thickness		R-Value		Conductance				
in	mm	(hr•ft²•°F)/Btu	m²•°C/W	Btu/(hr•ft²•°F)	W/m²•°C			
1/2	13	2.2	0.39	0.46	2.61			
1	25	4.2	0.74	0.24	1.36			
$1^{1}/_{2}$	38	6.3	1.11	0.16	0.91			
2	51	8.0	1.41	0.13	0.74			

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)

Sound Absorption Coefficient at Frequency

Thick	kness	((Cycles per Second) of											
in	mm	7	125	25	0		500		1000		2000	4000		NRC
1/2	13	(0.07	0.2	20		0.44		0.66		0.84	0.93		0.55
1	25	(0.08	0.3	31		0.64		0.84		0.97	1.03		0.70
11/2	38	(0.10	0.4	17		0.85		1.01		1.02	0.99		0.85
2	51	(0.25	0.0	66		1.00		1.05		1.02	1.01		0.95

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.



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Western Region & Canada P.O. Box 5108 Denver, CO 80217 (800) 368-4431 Fax: (303) 978-4661 The physical and chemical properties of Linacoustic® RC Fiber Glass 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 assure current information. All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions including Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions, Limited Warranty and Limitation of Remedy, and information on other Johns Manville thermal insulations and systems, call (800) 654-3103.