

Linacoustic® RC

Fiber Glass Duct Liner with Reinforced Coating System

Description

Linacoustic® RC insulation is a flexible duct liner 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, ensuring coverage of the leading edges per NAIMA/SMACNA requirements. Shop fabrication cuts may be coated with SuperSeal® edge treatment (refer to publication AHS-202).

Uses

Linacoustic RC insulation 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 C411	250°F (121°C)
Air velocity (max.) – ASTM C1071	6,000 fpm (30.5 m/sec)
Water repellency – INDA IST 80.6	≥6
Fungi resistance – ASTM C1338	Does not breed or promote
Fungi resistance – ASTM G21	No growth
Bacteria resistance – ASTM G22	No growth

Standard Thicknesses and Packaging

Thickness		Roll Length		Roll Widths for All Thicknesses*	
in	mm	lineal feet	lineal meters	in	mm
½	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	1118 to 1219
1½	38	50, 100	15, 31	56 to 60	1422 to 1524
2	51	50	15	66 to 72	1676 to 1829

*Available in ¼" (6.4 mm) increment.

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

Surface Burning Characteristics

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

Standard/Test Method

- ASTM E84
- UL 723
- NFPA 255
- NFPA 90A and 90B
- NFPA 259
- CAN/ULC S102-M88

Maximum Flame Spread Index	25
Maximum Smoke Developed Index	50

UL labels supplied on packages when requested on order.

Specification Compliance

- ASTM C1071, Type I
- ICC Compliant
- California Title 24
- MEA #353-93-M
- Conforms to 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 duct liner 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 fungi and bacteria.

Linacoustic RC duct liner meets all requirements for fungi and bacterial resistance. Tests were conducted in accordance with ASTM C1338 and ASTM G21 (fungi testing) and ASTM G22 (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

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.



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Installation

Linacoustic RC duct liner 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 duct liner'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 duct liner 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•ft²•°F)/Btu	m²•°C/W	Btu/(hr•ft²•°F)	W/m²•°C
½	13	2.2	0.39	0.46	2.61
1	25	4.2	0.74	0.24	1.36
1½	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 C518 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
½	13	0.07	0.20	0.44	0.66	0.84	0.93	0.55
1	25	0.08	0.31	0.64	0.84	0.97	1.03	0.70
1½	38	0.10	0.47	0.85	1.01	1.02	0.99	0.85
2	51	0.25	0.66	1.00	1.05	1.02	1.01	0.95

Coefficients were tested in accordance with ASTM C423 and ASTM E795.

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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The physical and chemical properties of the 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 ensure 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 insulation and systems, call (800) 654-3103.