

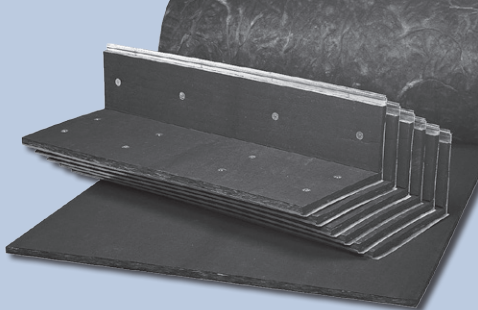
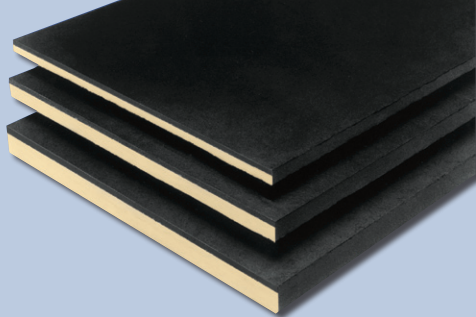


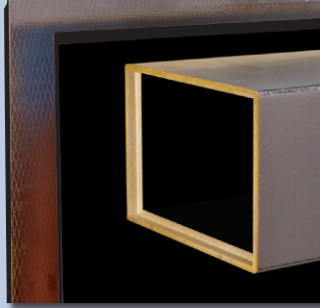
Fiber Glass Insulation

Air Handling Systems Product Selector Guide

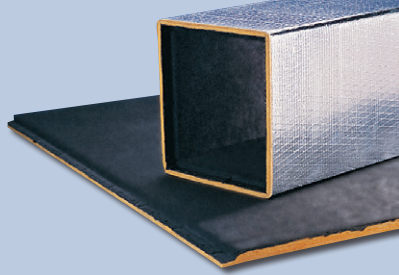
	Icon Key
	Thermal
	Acoustical
	Fire Resistant
	Moisture Control
	Recycled Content
	Formaldehyde-free [™] Products for improved indoor air quality

For more information, visit us at
specJM.com

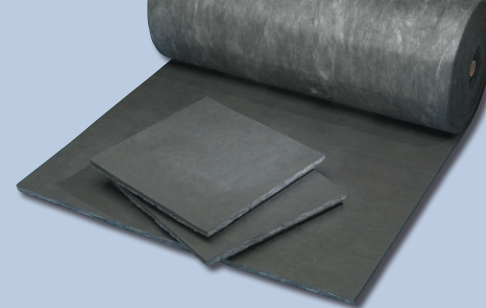
																																																																																																																				
	Permacote® Linacoustic® HP Fiber Glass Duct Liner	LinaTex® Textile Fiber Duct Liner	Permacote® Linacoustic® R-300 Rigid Fiber Glass Plenum Liner Board																																																																																																																	
																																																																																																																				
DESCRIPTION	Permacote Linacoustic HP insulation is a flexible duct liner made from strong glass fibers bonded with a thermosetting resin. The airstream surface is protected with Permacote, a state-of-the-art acrylic surface coating system. The exclusive Permacote coating system offers exceptional durability in exposure to air velocity, as well as superior acoustical and thermal performance. Operating Temperature Limit: 250°F (121°C) Maximum Air Velocity: 6,000 fpm (30.5 m/sec)	LinaTex duct liner is a flexible duct liner made from continuous glass fibers bonded with a thermosetting resin. The airstream surface is protected with a black, high-density glass mat. The mat offers exceptional durability in exposure to air velocity in systems operating at velocities up to 5,000 fpm (25.4 m/sec). Operating Temperature Limit: 250°F (121°C) Maximum Air Velocity: 5,000 fpm (25.4 m/sec)	R-300 insulation is a rigid fiber glass plenum liner board with the durable acrylic Permacote surface treatment. Operating Temperature Limit: 250°F (121°C) Maximum Air Velocity: 6,000 fpm (30.5 m/sec)																																																																																																																	
DESCRIPTION DESCRIPTION	THERMAL PERFORMANCE R-VALUE @ 75°F (24°C) MEAN TEMP. <table><tr><th>in</th><th>mm</th><th>(hr·ft²·°F)/Btu</th><th>m²·°C/W</th><th>Btu/hr·ft²·°F</th><th>W/m²·°C</th></tr><tr><td>1</td><td>25</td><td>4.3</td><td>0.76</td><td>0.23</td><td>1.31</td></tr></table> <i>R-value and conductance are calculated from the material thermal conductivity tested in accordance with ASTM C518 at 75°F (24°C) mean temperature.</i>	in	mm	(hr·ft²·°F)/Btu	m²·°C/W	Btu/hr·ft²·°F	W/m²·°C	1	25	4.3	0.76	0.23	1.31	THERMAL PERFORMANCE R-VALUE @ 75°F (24°C) MEAN TEMP. <table><tr><th>Type</th><th>in</th><th>mm</th><th>(hr·ft²·°F)/Btu</th><th>m²·°C/W</th></tr><tr><td>300</td><td>½</td><td>13</td><td>2.6</td><td>0.45</td></tr><tr><td>300</td><td>1</td><td>25</td><td>4.2</td><td>0.74</td></tr><tr><td>200</td><td>½</td><td>13</td><td>2.4</td><td>0.42</td></tr><tr><td>150</td><td>1</td><td>25</td><td>3.7</td><td>0.65</td></tr><tr><td>150</td><td>1½</td><td>38</td><td>5.5</td><td>0.97</td></tr></table>	Type	in	mm	(hr·ft²·°F)/Btu	m²·°C/W	300	½	13	2.6	0.45	300	1	25	4.2	0.74	200	½	13	2.4	0.42	150	1	25	3.7	0.65	150	1½	38	5.5	0.97	THERMAL PERFORMANCE R-VALUE @ 75°F (24°C) MEAN TEMP. <table><tr><th>in</th><th>mm</th><th>(hr·ft²·°F)/Btu</th><th>m²·°C/W</th></tr><tr><td>1</td><td>25</td><td>4.3</td><td>0.76</td></tr><tr><td>1½</td><td>38</td><td>6.3</td><td>1.11</td></tr><tr><td>2</td><td>51</td><td>8.7</td><td>1.53</td></tr></table>	in	mm	(hr·ft²·°F)/Btu	m²·°C/W	1	25	4.3	0.76	1½	38	6.3	1.11	2	51	8.7	1.53																																																							
	in	mm	(hr·ft²·°F)/Btu	m²·°C/W	Btu/hr·ft²·°F	W/m²·°C																																																																																																														
	1	25	4.3	0.76	0.23	1.31																																																																																																														
	Type	in	mm	(hr·ft²·°F)/Btu	m²·°C/W																																																																																																															
300	½	13	2.6	0.45																																																																																																																
300	1	25	4.2	0.74																																																																																																																
200	½	13	2.4	0.42																																																																																																																
150	1	25	3.7	0.65																																																																																																																
150	1½	38	5.5	0.97																																																																																																																
in	mm	(hr·ft²·°F)/Btu	m²·°C/W																																																																																																																	
1	25	4.3	0.76																																																																																																																	
1½	38	6.3	1.11																																																																																																																	
2	51	8.7	1.53																																																																																																																	
ASTM C423, TYPE "A" MOUNTING, FREQUENCY (HZ) <table><tr><th>in</th><th>mm</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th><th>NRC</th></tr><tr><td>1</td><td>25</td><td>0.04</td><td>0.24</td><td>0.69</td><td>0.96</td><td>1.05</td><td>1.01</td><td>0.75</td></tr></table>	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	ASTM C423, TYPE "A" MOUNTING, FREQUENCY (HZ) <table><tr><th>Type</th><th>in</th><th>mm</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th><th>NRC</th></tr><tr><td>300</td><td>½</td><td>13</td><td>0.03</td><td>0.14</td><td>0.30</td><td>0.55</td><td>0.72</td><td>0.84</td><td>0.45</td></tr><tr><td>300</td><td>1</td><td>25</td><td>0.08</td><td>0.27</td><td>0.62</td><td>0.86</td><td>0.92</td><td>0.91</td><td>0.65</td></tr><tr><td>200</td><td>½</td><td>13</td><td>0.06</td><td>0.13</td><td>0.28</td><td>0.52</td><td>0.71</td><td>0.74</td><td>0.40</td></tr><tr><td>150</td><td>1</td><td>25</td><td>0.09</td><td>0.24</td><td>0.50</td><td>0.70</td><td>0.86</td><td>0.87</td><td>0.60</td></tr><tr><td>150</td><td>1½</td><td>38</td><td>0.18</td><td>0.37</td><td>0.68</td><td>0.90</td><td>1.02</td><td>0.93</td><td>0.75</td></tr></table>	Type	in	mm	125	250	500	1000	2000	4000	NRC	300	½	13	0.03	0.14	0.30	0.55	0.72	0.84	0.45	300	1	25	0.08	0.27	0.62	0.86	0.92	0.91	0.65	200	½	13	0.06	0.13	0.28	0.52	0.71	0.74	0.40	150	1	25	0.09	0.24	0.50	0.70	0.86	0.87	0.60	150	1½	38	0.18	0.37	0.68	0.90	1.02	0.93	0.75	ASTM C423, TYPE "A" MOUNTING, FREQUENCY (HZ) <table><tr><th>in</th><th>mm</th><th>125</th><th>250</th><th>500</th><th>1000</th><th>2000</th><th>4000</th><th>NRC</th></tr><tr><td>1</td><td>25</td><td>0.04</td><td>0.26</td><td>0.69</td><td>1.00</td><td>1.07</td><td>1.02</td><td>0.75</td></tr><tr><td>1½</td><td>38</td><td>0.14</td><td>0.52</td><td>1.01</td><td>1.07</td><td>1.03</td><td>0.97</td><td>0.90</td></tr><tr><td>2</td><td>51</td><td>0.26</td><td>0.73</td><td>1.10</td><td>1.10</td><td>1.04</td><td>1.03</td><td>1.00</td></tr></table>	in	mm	125	250	500	1000	2000	4000	NRC	1	25	0.04	0.26	0.69	1.00	1.07	1.02	0.75	1½	38	0.14	0.52	1.01	1.07	1.03	0.97	0.90	2	51	0.26	0.73	1.10	1.10	1.04	1.03	1.00
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																																																																																																												
Type	in	mm	125	250	500	1000	2000	4000	NRC																																																																																																											
300	½	13	0.03	0.14	0.30	0.55	0.72	0.84	0.45																																																																																																											
300	1	25	0.08	0.27	0.62	0.86	0.92	0.91	0.65																																																																																																											
200	½	13	0.06	0.13	0.28	0.52	0.71	0.74	0.40																																																																																																											
150	1	25	0.09	0.24	0.50	0.70	0.86	0.87	0.60																																																																																																											
150	1½	38	0.18	0.37	0.68	0.90	1.02	0.93	0.75																																																																																																											
in	mm	125	250	500	1000	2000	4000	NRC																																																																																																												
1	25	0.04	0.26	0.69	1.00	1.07	1.02	0.75																																																																																																												
1½	38	0.14	0.52	1.01	1.07	1.03	0.97	0.90																																																																																																												
2	51	0.26	0.73	1.10	1.10	1.04	1.03	1.00																																																																																																												
	Recycled Content: 20% post consumer 5% pre consumer	Recycled Content: 66%–83% pre consumer, dependent on material type	Recycled Content: 20% post consumer 5% pre consumer																																																																																																																	
SPECIFICATION COMPLIANCE	ASTM C1071, Type I Conforms to ASHRAE 62 California Title 24 MEA 353-93-M SMACNA Application Standards for Duct Liners NAIMA Fibrous Glass Duct Liner Installation Standard ASTM D5116-State of Washington Canada: CGSB 51-GP-11M and CAN/ULC S102-M88	ASTM C1071, Type I, Flexible ASTM G21 and G22 ASTM D5116-State of Washington SMACNA Application Standards for Duct Liners NAIMA Fibrous Glass Duct Liner Installation NFPA 90A and 90B, FHC 25/50 Conforms to ASHRAE 62 California Title 24 Canada: CGSB 51-GP-11M and CAN/ULC S102-M88	ASTM C1071, Type II ASTM G21 and G22 ASTM D5116-State of Washington SMACNA Application Standards for Duct Liners NAIMA Fibrous Glass Duct Liner Installation NFPA 90A and 90B, FHC 25/50 Conforms to ASHRAE 62 California Title 24 NYC MEA # 353-93-M Canada: CGSB 51.10 and CAN/ULC S102-M88																																																																																																																	



Mat-Faced Micro-Aire®
Fiber Glass Duct Board



SuperDuct® RC System
Coated High-Performance Air Duct Board



Linacoustic® RC
Fiber Glass Duct Liner with Reinforced Coating



Fiber glass duct board for fabrication into rectangular ductwork, the airstream side of the duct board features a fiber glass mat for use at velocities up to 5,000 fpm (25.4 m/sec).

- Type 475 & Type 800

Operating Temperature Limit:
250°F (121°C)

Maximum Air Velocity:
5,000 fpm (25.4 m/sec)



SuperDuct RC Air Duct Board is the primary component of the system, which also consists of SuperSeal® coating products. SuperDuct RC duct board features an airstream surface protected with JM's exclusive Reinforced Coating System that combines state-of-the-art Permacote acrylic coating with a flexible glass cloth reinforcement.

Operating Temperature Limit:
250°F (121°C)

Maximum Air Velocity:
6,000 fpm (30.5 m/sec)



Flexible duct liner insulation with the airstream surface protected with JM's exclusive Reinforced Coating System that combines state-of-the-art Permacote acrylic coating with a flexible glass cloth reinforcement.

Operating Temperature Limit:
250°F (121°C)

Maximum Air Velocity:
6,000 fpm (30.5 m/sec)

THERMAL PERFORMANCE
R-VALUE @ 75°F (24°C) MEAN TEMP.

in	mm	Type	(hr•ft²•°F)/Btu	m²•°C/W
1	25	475	4.3	0.76
1½	38	800	6.5	1.15
2	51	800	8.7	1.53

THERMAL PERFORMANCE
R-VALUE @ 75°F (24°C) MEAN TEMP.

in	mm	Type	(hr•ft²•°F)/Btu	m²•°C/W
1	25	475	4.3	0.76
1½	38	800	6.5	1.15
2	51	800	8.7	1.53

THERMAL PERFORMANCE
R-VALUE @ 75°F (24°C) MEAN TEMP.

in	mm	(hr•ft²•°F)/Btu	m²•°C/W
½	13	2.2	0.39
1	25	4.2	0.74
1½	38	6.3	1.11
2	51	8.0	1.41

ASTM C423, TYPE "A"
MOUNTING, FREQUENCY (HZ)

Type	in	mm	125	250	500	1000	2000	4000	NRC
475	1	25	0.07	0.25	0.63	0.90	0.97	1.00	0.70
800	1½	38	0.10	0.42	0.91	1.04	1.04	1.04	0.85
800	2	51	0.17	0.63	1.10	1.05	1.04	1.06	0.95

ASTM C423, TYPE "A"
MOUNTING, FREQUENCY (HZ)

Type	in	mm	125	250	500	1000	2000	4000	NRC
475	1	25	0.04	0.27	0.71	0.96	1.03	0.99	0.75
800	1½	38	0.11	0.45	0.96	1.07	1.06	1.00	0.90
800	2	51	0.14	0.81	1.10	1.07	1.03	1.01	1.00

ASTM C423, TYPE "A"
MOUNTING, FREQUENCY (HZ)

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

Recycled Content:
20% post consumer
5% pre consumer

UL 181, Class 1 Rigid Air Duct Listed
ASTM G21 and G22
Conforms to ASHRAE 62
ICC Compliant
NFPA 90A and 90B

Recycled Content:
20% post consumer
5% pre consumer

UL 181, Class 1 Rigid Air Duct Listed
NFPA 90A and 90B
Conforms to ASHRAE 62
ASTM G21 and G22
Canada: CGSB 51.10
CAN/ULC-S110M

Recycled Content:
20% post consumer
5% pre consumer

ASTM C1071, Type I, Flexible
ASTM G21 and G22
SMACNA Application Standards for Duct Liners
NAIMA Fibrous Glass Duct Liner Installation
NFPA 90A and 90B, FHC 25/50
ICC Compliant
Conforms to ASHRAE 62
California Title 24
Canada: CGSB 51-GP-11M
CAN/ULC S102-M88



Spiracoustic Plus® System
Fiber Glass Liners for Round Metal Ducts

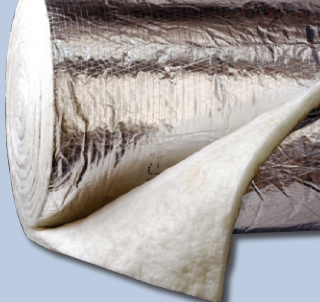


A group of fiber glass duct liners for round ducts of virtually any size. Products have the durable acrylic Permacote surface treatment.

- VSD for very small diameters
- SD for small diameters
- LD for large diameters

Operating Temperature Limit:
250°F (121°C)

Maximum Air Velocity:
6,000 fpm (30.5 m/sec)



Microlite® XG™
Formaldehyde-free™ Fiber Glass Duct Wrap



Fiber glass duct wrap insulation used on the exterior of rectangular and round metal ducts as thermal insulation.

Operating Temperature Limit:
250°F (121°C)

THERMAL PERFORMANCE
R-VALUE @ 75°F (24°C) MEAN TEMP.

in	mm	(hr•ft²•°F)/Btu	m²•°C/W
1	25	4.3	0.76
1½	38	6.4	1.13
2*	51	8.4	1.48

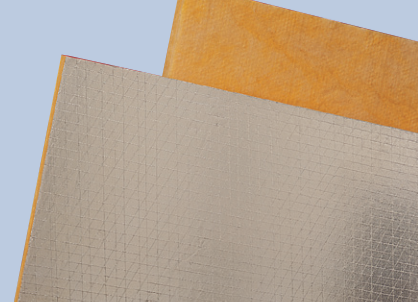
*2" is not stocked; special order only.

ASTM C423, TYPE "A"
MOUNTING, FREQUENCY (HZ)

in	mm	125	250	500	1000	2000	4000	NRC
1	25	0.05	0.21	0.71	1.01	1.07	1.04	0.75
1½	38	0.10	0.39	1.02	1.08	1.04	1.00	0.85
2	51	0.17	0.63	1.10	1.05	1.04	1.06	0.95

Recycled Content:
20% post consumer
5% pre consumer

ASTM C1071 Air Erosion Test / UL 181
ASTM G21 and G22
ASTM E84, FHC 25/50
NFPA 90A and 90B
ASTM D5116-State of Washington
Conforms to ASHRAE 62
ULC S102-M88



800 Series Spin-Glas®
Fiber Glass Duct and Equipment Insulation



800 Series Spin-Glas insulation can be used in plain or faced form to insulate heating ducts and equipment. 800 Series Spin-Glas insulation is ideal for application on commercial and industrial heating, air conditioning, power and process equipment.

Operating Temperature Limit:
Unfaced: 450°F (232°C)
Faced: unfaced side 450°F (232°C)
faced side 150°F (66°C)

THERMAL PERFORMANCE
(ASTM C177 AND C518)

Type	in	mm	Btu-in/(hr•ft²•°F)	m²•°C/W
812	1½–4	38–102	0.24	0.035
813	1½–4	38–102	0.23	0.033
814	1–4	25–102	0.23	0.033
815	1–2½	25–64	0.22	0.032
817	1–2	25–51	0.22	0.032

ASTM C423, TYPE "A"
MOUNTING, FREQUENCY (HZ)

Type	in	mm	125	250	500	1000	2000	4000	NRC
812	1	25	0.07	0.24	0.63	0.87	1.00	1.02	0.70
812	2	51	0.24	0.68	1.10	1.13	1.10	1.07	1.00
813	1	25	0.08	0.27	0.69	0.95	1.05	1.02	0.75
813	2	51	0.19	0.88	1.15	1.14	1.10	1.07	1.05
814	1	25	0.06	0.29	0.75	0.99	1.04	1.02	0.75
814	2	51	0.24	1.00	1.11	1.08	1.06	1.05	1.05
815	1	25	0.03	0.32	0.80	1.04	1.05	1.05	0.80
815	2	51	0.27	0.91	1.11	1.09	1.09	1.09	1.05
817	1	25	0.10	0.35	0.85	1.04	1.05	1.03	0.80
817	2	51	0.38	0.93	1.10	1.07	1.07	1.07	1.05

OUT OF PACKAGE

Type	in	mm	(hr•ft²•°F)/Btu	m²•°C/W
75	1½	38	5.2	0.92
75	2	51	6.9	1.22
75	2.3	58	8.0	1.41
75	3	76	10.3	1.81
100	1½	38	5.6	0.99
100	2	51	7.4	1.30
150	1½	38	6.0	1.06
150	2	51	8.0	1.41

Recycled Content:
20% post consumer
5% pre consumer

ASTM C553
• Type II – Type 75, 100 and 150
• Type III – Type 150
ASTM C1290
ASTM C1139, Type II
• Grade I – Type 75 Faced
• Grade II – Type 100 Faced
• Grade III – Type 150 Faced
ASTM E84, FHC 25/50 – FSK Facing
ASTM C1136, Type II – FSK Facing
NYC MEA # 40-75-M
Canada: CGSB 51-GP-11M and CAN/ULC S102-M88

ASTM C612, Type 1A and 1B
• (813, 814, 815, 817)
ASTM C553, Type III
• (812 Only)
ASTM C795
ASTM C1136
• Type I – AP Facing
• Type II – AP and FSK Facing
ASTM E84, UL 723, NFPA 255
FHC 25/50, NFPA 90A and 90B
HH-I-558C, Form B, Type I, Class 7
• (812, 813, 814, 815)
MIL-I-24244C
NRC 1.36
Canada: CGSB 51-GP-10M and CAN/ULC S102-M88



The physical and chemical properties of the Air Handling Systems Products 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 insulations and systems, call (800) 654-3103.**



717 17th St.
Denver, CO 80202
(800) 654-3103
specJM.com

AHS-187 03/12 (Replaces 02/11)



Printed on recycled paper.

© 2012 Johns Manville. Printed in USA.