

## Thermacon Quiet Liner

### DESCRIPTION

**Thermacon Quiet Liner** is a highly efficient resilient fiber insulation composed of fine, stable and uniformly textured inorganic glass fibers bonded together by a non-water soluble and fire-retardant thermosetting and heat resistant resin.

### FACING

**Thermacon Quiet Liner** is supplied in rolls, boards and batts unfaced and Perforated facing, RP-51 Heavy Duty, Black Scrim and various other facings.

### APPLICATION

**Thermacon Quiet Liner** is intended for use in commercial, industrial and residential construction as thermal and acoustical insulation of heating, air-conditioning and interior of dual temperature duct work, air handling equipment.

Also used as an efficient sound absorption treatment of walls and ceilings, acoustic enclosures, generator rooms, studios, curtain walls, auditoriums, conference rooms and theaters.

### STANDARD AVAILABLE PRODUCTS

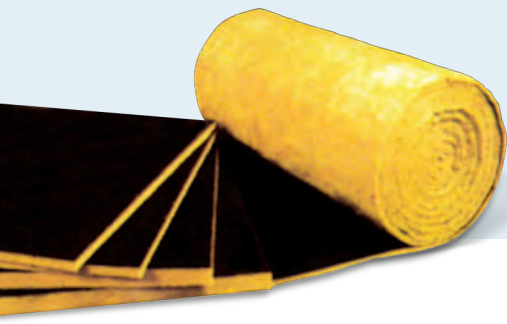
Nominal Manufacturing Specifications. Check for availability other dimensions and densities.

Thickness	Width	Length	
15mm	600mm up to 1.5m Batts 430mm to 580mm	Roll 7.5m to 24m	Board 2.4m Batts 1.2m
25mm			
38mm			
50mm			
75mm			
100mm			
110mm			
130mm			
140mm			
145mm			
150mm			
173mm			

### NOMINAL THERMAL CONDUCTIVITY

Mean Temperature	16	24	32	48	64	72	80	96
24 °C	0.039	0.035	0.033	0.031	0.032	0.035	0.032	0.032

Available in densities; 12kg/m<sup>3</sup>, 14kg/m<sup>3</sup>, 16kg/m<sup>3</sup>, 22kg/m<sup>3</sup>, 24kg/m<sup>3</sup>, 32kg/m<sup>3</sup>, 48kg/m<sup>3</sup>



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## Performance & Physical Characteristics

### Working Temperature Limitations (ASTM C 411)

Operating up to 260°C (500°F) for the WGF faced product. At excessive temperatures, a limited migration of binder may occur in the insulation in contact with hot surface. This in no way impairs the performance of the insulation.

### Mold Growth (ASTM D 2020, UL 181)

Does not breed or sustain mold, fungus, bacteria or rodents.

### Corrosiveness (ASTM C 665)

Chemically inert. Will not cause or accelerate corrosion of steel, stainless steel, copper or aluminum, due to its particular inorganic and mineral composition.

### Moisture Absorption (ASTM D-07 B, ASTM C 553)

In conditions of 95% relative humidity at 49°C for 96 hours, moisture absorption is less than 0.2% by volume, when tested in accordance with ASTM C 533. Thermacon fiberglass products do not absorb moisture from the ambient air nor water by capillary attraction, only water under pressure can enter the insulation products but that will quickly dry out owing to the material's open cell structure.

### Specification Compliance

Thermacon Quiet Liner Insulation complies with the property requirements of the following specifications:

- U.S. Federal Specification HH-I-545 B, TYPE I
- ASTM C 1071: For Acoustical Performance
- NFPA 90 A: For Fire Resistance
- NFPA 255: For Fire Hazard Classification
- BS 476: parts 6,7 Class O Fire Classification
- DCL ASTM - C 533 - C 547 - C 612 - C 665
- CE-EN 13162

### Surface Burning Characteristics (UL 723, ASTM E 84, ASTM E 136)

Base glass fiber is non-combustible when tested to AS1530 Part 1.

Tested in accordance to AS1530 Part 3, 0003

### Alkalinity

pH 9

### Thermal Resistance "R" Value (Excluding Facing) (ASTM C 167)

"R" is a measure of the resistance to heat flow of a material of any given thickness. ("R" = m<sup>2</sup>. °C/W or hr. ft<sup>2</sup>. °F/Btu.)

Tested in accordance to AS4859.1 ASTM C 518

#### 32kg/m<sup>3</sup> Quietliner

Thickness	R Value
25mm	0.76
40mm	1.21
50mm	1.51
75mm	2.27
100mm	3.03

#### 12kg/m<sup>3</sup> Quietliner

Thickness	R Value
55mm	1.3
75mm	1.8
100mm	2.3
110mm	2.5
130mm	3.0
140mm	3.3
145mm	3.6
150mm	3.7
173mm	4.0

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### Acoustical Performance (ASTM C 423-777)

Reverberation Chamber Method  
Sound Absorption Coefficients at Frequencies (Hz)

Product	Thickness		Sound	Absorption coefficient at one third octave center frequencies (Hz)						NRC
	mm	w		125	250	500	1000	2000	4000	
	QL 16	25	1	0.09	0.24	0.49	0.85	0.83	0.77	0.60
	50	2	0.34	0.59	0.93	0.94	0.94	0.98	0.85	
QL 24	25	1	0.12	0.32	0.70	0.93	0.95	0.99	0.75	
	50	2	0.27	0.69	1.01	1.07	1.06	1.05	0.95	
QL 32	15	½	0.05	0.13	0.32	0.65	0.79	0.93	0.45	
	25	1	0.29	0.45	0.77	1.00	0.93	0.96	0.80	
	50	2	0.37	0.92	1.04	1.14	1.13	1.01	1.05	
QL 48	15	½	0.05	0.12	0.29	0.51	0.68	0.80	0.40	
	25	1	0.22	0.52	0.73	0.98	1.02	1.00	0.80	
	50	2	0.30	0.85	1.03	1.07	1.06	1.00	1.00	
QL 64	25	1	0.06	0.19	0.62	0.83	0.90	0.95	0.65	
	50	2	0.21	0.75	1.00	1.00	1.00	0.95	0.95	

### Installation Recommendation for Quietliner

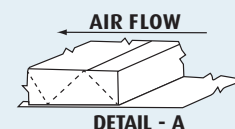
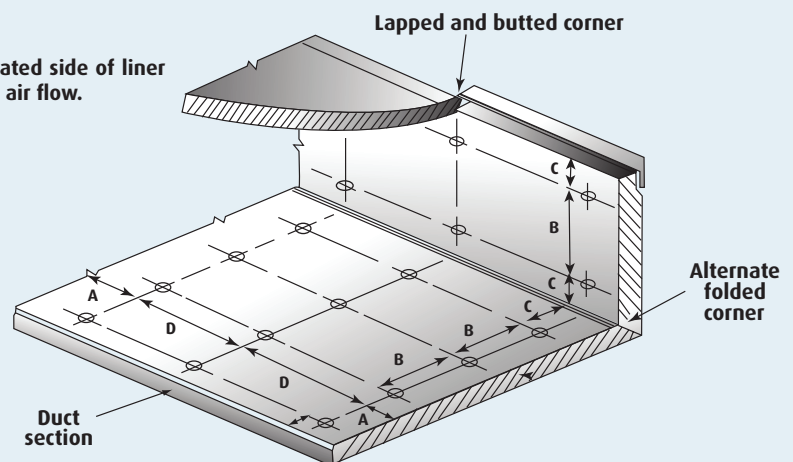
**Thermacon Quiet Liner Products** are available in roll and board types. The desired application length can be easily measured and cut from the full size. **Thermacon Quiet Liner** is applied to the interior of ducts and plenums with the facing laminate facing the air stream. Transverse joints are to be neatly butted, with no interruptions or gaps. Longitudinal to be overlapped and compressed.

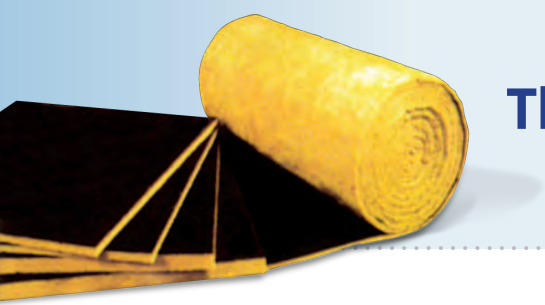
The liner should be additionally secured with mechanical fasteners which will compress the product sufficiently to hold it firmly in place.

**For velocities to 10 m/s:** fasteners should start within 75 mm of the upstream transverse edges of the liner and 75 mm from longitudinal joints, and should be spaced at maximum of 300 mm from the corner break. Elsewhere, they should be a maximum 450 mm on centers except to be placed not more than 150 mm from a longitudinal joint and 300 mm from a corner break.

**For velocities from 10 to 20 m/s:** fasteners should be placed as above, except to be spaced at a maximum of 150 mm from the corner break. Elsewhere, they should be a maximum of 400 mm on centers except to be placed not more than 150 mm from the longitudinal joint and 300 mm from the corner break. In addition to the edge coating of transverse joints, longitudinal joints should be similarly coated with adhesive. For velocities from 20 to 30 m/s, fasteners should be similarly spaced as for 10 to 20 m/s. In addition, metal nosing should be installed to secure the liner at all upstream transverse edges.

The velocity rated side of liner must face the air flow.





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## MAINTENANCE

No maintenance is required. **Thermacon Quiet Liner** have a high resistance to accidental damage from knocks and handling during installation and maintenance. Dimensionally stable under varying conditions of temperature and humidity, rot-proof, odourless, non-hygroscopic and will not sustain vermin or fungus due to its inorganic and mineral compositions.

The product will maintain its thermal properties throughout the lifetime of the construction and will not age. **Thermacon** fibreglass is non toxic and not hazardous to health.

## STORAGE

To avoid moisture in the building construction, **Thermacon** insulation products stored outside must be kept dry. We recommend **Thermacon** products to be always stored in covered and dry areas. **Thermacon** is not liable for the damage resulting from inadequate utilization, loading and off loading and mishandling of its products.

Authorized Distributor



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