



## Faced Duct Wrap Insulation



### DESCRIPTION

**Thermacon Duct Wrap Insulation** is highly efficient, resilient, flexible blanket 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. It is free from coarse fibers and shot due to its mineral composition.



### FACING

**Thermacon Duct Wrap Insulation** is manufactured in a roll form and subsequently faced on one side by factory laminators, with a suitable vapor retardant Aluminium Foil, medium duty, heavy duty and various other facings.



### APPLICATION

**Thermacon Duct Wrap Insulation** is intended for use in commercial, institutional, industrial and residential construction as thermal and acoustical insulation of heating, air conditioning and dual temperature ducts and air handling equipment. The use of **Thermacon** Duct Wrap helps prevent condensation when properly applied to air-condition ductwork.

The semi-rigid duct wrap with densities from 18kg/m<sup>3</sup> to 56 kg/m<sup>3</sup>, are flexible insulation rolls for application over irregularly-shaped surfaces where rigidity properties are desired.



### STANDARD AVAILABLE PRODUCTS

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

Density	Thickness	R Value	Width
kg/m <sup>3</sup>	mm		m
16	25	0.641	1.2 - 1.5
	40	1.02	
	50	1.3	
	75	1.92	
	100	2.56	
18	25	0.69	1.2 - 1.5
	40	1.11	
	50	1.38	
	75	2.08	
	100	2.77	
24	25	0.71	1.2 - 1.5
	40	1.14	
	50	1.4	
	75	2.14	
	100	2.86	
32	25	0.76	1.2 - 1.5
	40	1.2	
	50	1.51	
	75	2.27	
	100	3.03	

\* Standard Products and Sizes





# THERMACON Duct Wrap Insulation



## Performance & Physical Characteristics

### Working Temperature Limitations (ASTM C 411)

-4°C to +350°C. At excessive temperatures a limited migration of binder may occur in the insulation in contact with the hot surface. This in no way impairs the performance of the insulation.

### Alkalinity

pH 9

### 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.

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

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

### 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.



### STORAGE

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

### Fire Properties

**AS1530 Part 3 - 0.0.0.1**  
**B.S. 476 Part 4 - Non Combustible**  
**ASTM E84 Non Combustible**  
**AS1530 Part 1 Non Combustibility**

### Thermal Resistance "R"Value (Excluding Facings)

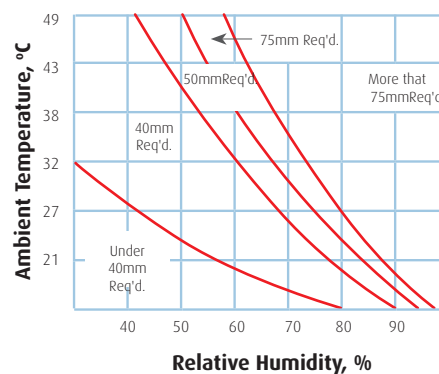
"R" is a measure of the resistance to heat flow of a material of any given thickness. ("R" =  $m^2 \cdot ^\circ C/W$  of hr.  $ft^2 \cdot ^\circ F/Btu.$ )

**AS4859.1 - ASTM C518**

### Condensation Control

How to select appropriate thickness for condensation control: to determine thickness to prevent condensation at various ambient temperature and humidity levels based on installed thickness 75% of nominal (out-of-package) thickness, 13°C air duct internal temperature:

1. Select maximum expected relative humidity (RH) on the lower scale.
2. Move up vertically until that line intersects the expected maximum ambient air temperature.
3. Select the thickness indicated by the intersection point



The above chart is based on indoor conditions so far as wind and other factors are concerned.

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### Compressive Strength

Type	16	18	24	32	48	56
PSF at 10% Deformation	5	10	12	16	25	30
PSF at 25% Deformation	10	15	20	60	90	110

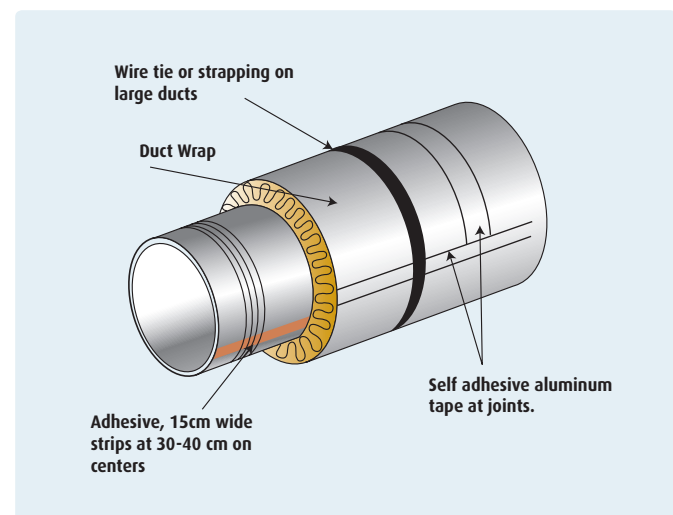
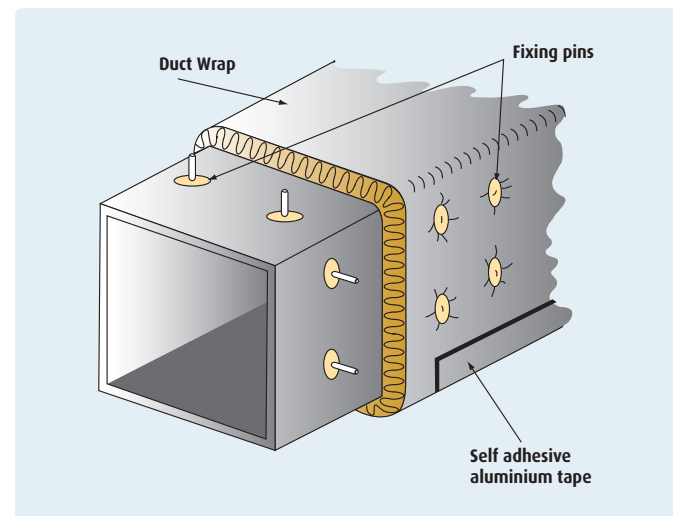
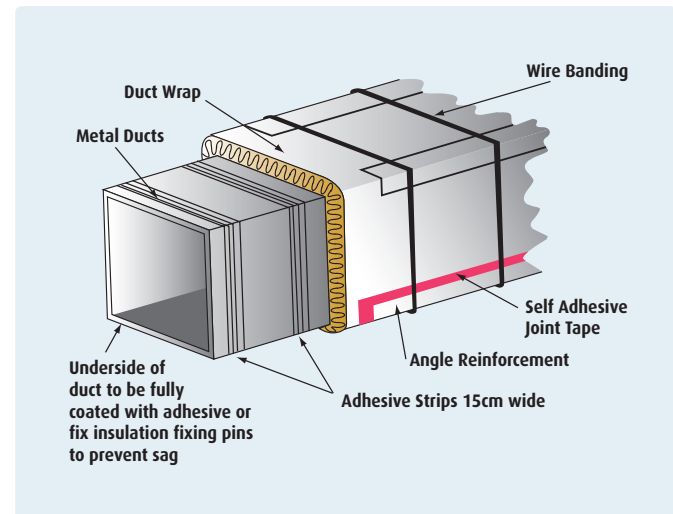
### Sound Absorption Coefficients ASTM C 423-777

Insulation	Sound Absorption Coefficient at Frequencies (Hz)						
	125	250	500	1000	2000	4000	NRC
Thickness							
25mm	0.38	0.34	0.68	0.82	0.87	0.96	0.70
50mm	0.44	0.66	1.07	1.06	0.99	1.06	0.95
<b>32kg/m<sup>3</sup></b>							
25mm	0.33	0.28	0.62	0.88	0.96	1.04	0.70
50mm	0.38	0.68	1.10	1.07	1.05	1.05	0.95

### Installation Guideline

**Thermacon Duct Wrap Insulation** products are available in rolls. The desired application length can be easily measured and cut from the full roll. Duct Wrap can be impaled on pins and adhered with recommended adhesive. When using aluminium alloys pins, pin spacing along a duct should be no greater than 300mm on centers. Fasteners should be located no less than 75mm from each edge or corner. Apply vapor-seal pressure-sensitive aluminium joint sealing tape to joints and protrusions. 75mm wide tape should be used.

Note: Outdoor applications require additional weather protection.



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