

# thermaround

## OUTDOOR DUCT SOLVED

Purchaser	P.O. #	Date
Project	Location	
Engineer	Architect	
Submitted by	For Approval	For Review Only

### Introduction

Thermaround is a highly efficient, code compliant pre-insulated outdoor duct system designed to provide high R-values, lower air leakage, IAQ performance and exceptional water tight integrity for your HVAC applications. Just like rectangular ThermaDuct, Thermaround is closed cell phenolic foam insulation, factory bonded to a 1000 micron UV stable vinyl clad. Air will pass through a smooth aluminum surface on the interior of the duct, free from loose fibers. The exterior cladding is highly resistant to punctures, rips, tears and has exceptional rigidity. Thermaround's patented assembly process can virtually eliminate air leakage entirely.



### OD Duct Construction Type

Place an "X" by the duct system that applies:

- R-12 Thermaround Aluminum FSK Duct Liner (Standard)
- R-12 Thermaround with Additional Liner (Note in Comments Box)
- \_\_\_\_\_ " E.S.P.

Comments:

### Properties

Color:	Polar white with reflective sheen
Density:	Shell offers a tensile strength of over 6,350 psi
Flammability:	Core: Kingspan KoolDuct, 25/50 compliant. Shell: V-0 per UL-94
Minimum R-value:	R-12 both out of package and installed
Temperature Limits:	Interior; 185 F, Exterior; 165 F
Closed Cell Content:	Greater than 90%
Vapor Barrier:	Aluminum Duct Lining interior combined with zero permeability 1500 micron UV stable vinyl
Fire/Smoke Performance:	UL 723 Flame Spread / smoke development interior <25/50

### Standard Features

- Weather proof 1000 Micron outdoor cladding
- Circular shape sheds water and snow
- High R-value
- Low air leakage
- Water tight
- Closed cell, zero fiber insulation
- Low and medium pressure class
- Sturdy hail and people resistant
- High impact resistance
- Low thermal expansion
- Heat reflective surface
- Fully assembled and factory sealed
- Closed cell foam interior with aluminum FSK liner
- Welded or cohesively bonded seams
- LEED point eligible
- 10 year warranty \*

\* See warranty statement for full warranty details



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## Operating Recommendations:

It is recommended that the application of ThermaDuct supplied be utilized for operation as a supply, return, fresh air and exhaust air ductwork applications for heating, ventilation, and air conditioning applications.

Air Velocity (Maximum)	5000 fpm / 25.4 m/s
Design Pressure (Maximum)	Positive 10" Negative 8" w.g. / 2500 Pa *
Temperature	Internal; Continuous -50°F to +185°F
Size Limitations	80" (consult factory above 80")

\* Proper reinforcement required

## Compliance/Testing:

Duct Interior: Closed Cell Phenolic Foam - UL (Underwriters Laboratories) 181 Listed as a Class 1 Air Duct when fabricated to a specification clearly defined by the UL.

Exterior Cladding: ASTM D-638, ASTM D790, ASTM D-256, ASTM D-4226, ASTM D-4216, ASTM D-792, ASTM D-2240, ASTM D-696, ASTM D-648, UL-94

## Frictional Properties:

ThermaRound is a factory assembled air distribution system that employs a smooth aluminum surface that has frictional characteristics of sheet metal duct. As a result, the frictional pressure drop data for galvanized sheet metal ductwork can be applied when designing and specifying ThermaRound air distribution systems.

## Health & Safety:

ThermaRound high efficiency outdoor air distribution systems have a non-fibrous insulation core that is odorless, non-tainting, non-deleterious, chemically inert and safe to use.

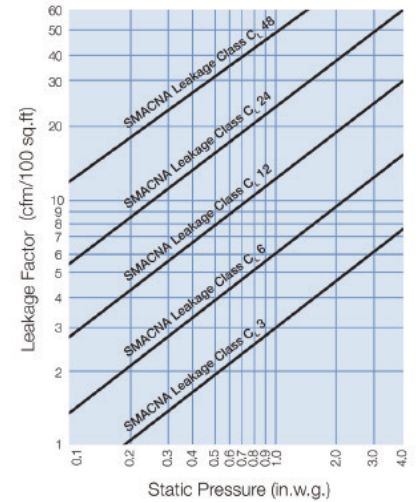
## Additional Information:

Additional information, such as literature, job photos and case studies, can be found online at [www.thermaduct.com](http://www.thermaduct.com) or by calling (855) 566-5382. For general inquiries, you can also reach us at [info@thermaduct.com](mailto:info@thermaduct.com).

## Operating Recommendations:

ThermaRound is designed to withstand a continuous maximum static pressure of 10 inches water gauge / 2500 pa\* and is designed to have less than a SMACNA Air-Leakage Class 1 duct with the ThermaDuct connection system.

ThermaRound is designed to provide the lowest air leakage rates in the industry. By combining a layer of a bonded aluminum duct to the inner and outer closed cell foam insulation core, all protected with 1000 micron UV stable vinyl clad with welded or cohesively bonded seams...you simply cannot find a more air and water-tight outdoor duct system anywhere. Combining the best products and techniques to create the finest exterior air distribution product for outdoor ducting applications that we can manufacture.



This chart is based on SMACNA HVAC Air Duct Leakage Test Manual, 1985 Edition found in Figure 4-1 under "Duct Leakage Classification".

## Code Compliance:

ThermaDuct will meet or exceed all IECC energy codes and ASHRAE 90.1 energy standards for Buildings for both return and supply air ducts for both commercial and residential applications.

ThermaRound is designed to meet the needs of outdoor duct applications by employing the assembly of the best technologies available in today's growing levels of energy saving performance. ThermaDuct is manufactured under strict guidelines for health and safety in compliance to OSHA CFR29. All manufacturing is compliant to SMACNA duct construction methods employing trained and certified building trade professionals.



A **thermaduct**™ PRODUCT

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