

thermaduct®

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

OUTDOOR RECTANGULAR DUCTWORK

Thermaduct® is our patented rectangular exterior ducting solution that offers high R-values and low air leakage. It provides the duct, the insulation and cladding all in one high performance product. Thermaduct® is available in insulated values between R-8 and R-24 and offers extremely low air leakage. All these benefits are protected by a strong, UV stable 1000 micron vinyl cladding and built to meet or exceed the SMACNA Phenolic Duct Construction Standards.

CONSTRUCTION TYPE

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

- ☐ R-8 Thermaduct (1 Layer - 1 3/8" Panel)
- ☐ R-12 Thermaduct (1 Layer - 1 7/8" Panel)
- ☐ R-16 Thermaduct (2 Layers - 1 3/8" Panel)
- ☐ R-20 Thermaduct (1 Layer - 1 7/8" Panel, 1 Layer - 1 3/8" Panel)
- ☐ R-24 Thermaduct (2 Layers - 1 7/8" Panel)

_____ " E.S.P.

Comments:



STANDARD FEATURES

- Weather resistant outdoor cladding
- High R-values
- Low air leakage
- Water Tight Zero Perm Exterior
- Closed cell insulation
- Low and medium pressure class
- High impact resistance
- High IAQ Phenolic aluminum interior
- Low Thermal Expansion
- Heat Reflective Surface
- Standard white color **
- Fully assembled and factory sealed
- Welded or cohesively bonded seams
- LEED point eligible
- 10 year limited warranty *

PROPERTIES

Color:
Flammability:
Thermal Conductivity:
Minimum R-value:
Temperature Limits:
Vapor Barrier:

Fire/Smoke Performance:

Polar white with IR reflective sheen
Core: ASTM E84 25/50 compliant Phenolic panel
K = 0.146 BTU/in/ft²/hr./degree F
R-8.1 both out of package and installed
Interior; 185 F, Exterior; 165 F
Autohesively bonded aluminum foil with zero perforations
with zero permeability UV stable vinyl
ASTM E84 Flame spread / smoke development interior <25/50

*
**

See warranty tatement in Contractor Installation Manual for full warranty details
Other colors are available, minimum order required.

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)	6000 fpm / 25.4 m/s
Design Pressure (Maximum)	Designed up to Pos. and Neg. 10 in-w.g. / 2500 Pa *
Temperature	Internal; Continuous -15°F to +185°F
Size Limitations	None

* Proper reinforcement and installation required

COMPLIANCE & TESTING

Thermaduct® is comprised of a phenolic fortified cladded duct system in accordance with the requirements of factory-made air ducts. Thermaduct® is specifically designed for use in outdoor applications where adverse weather conditions will occur. Thermaduct® incorporates the following standards

ASTM E84, NFPA 90A, 90B Interior Phenolic;
ASTM D-638, ASTM D790, ASTM D-256, ASTM D-4216,
ASTM D-792, ASTM D-2240, ASTM D-648, UL-94 Exterior
Cladding;

FRICTIONAL PROPERTIES

Thermaduct® is a factory assembled air distribution system that employs a smooth aluminum surface with zero perforations that has frictional characteristics much like that of galvanized sheet metal (See ASHREA test RP-1764). As a result, the frictional pressure drop data for galvanized sheet metal ductwork can be applied when designing and specifying Thermaduct air distribution systems.

HEALTH & SAFETY

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

CLADDING INFORMATION

Thermaduct®'s factory color options have been carefully selected for their reflective properties and low thermal expansion. Because of this, our vinyl cladded products are not paintable. For additional color options for your application, ask your local Thermaduct® representative about our Thermaduct® Architectural Products.

ADDITIONAL INFORMATION

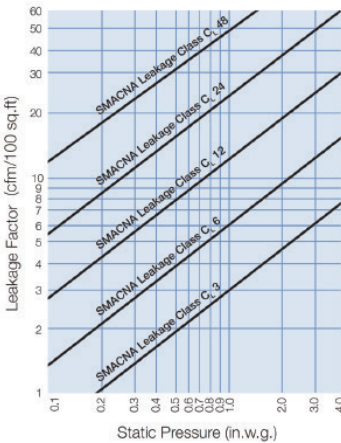
Additional information, such as literature, online installation training and case studies are available on our website online at www.thermaduct.com or by calling (855) 566-5382. For general inquiries, you can also reach us at thermaduct.com/contact.

Comments

OPERATING RECOMMENDATIONS

Thermaduct® can be designed to withstand a continuous maximum static pressure of 10 inches water guage / 2500 pa* and is designed to have between a SMACNA Air-Leakage Class 1 and Class 3, depending on the static pressure, with the Thermaduct connection system and our patented Airtruss® duct reinforcement.

Thermaduct® is designed to provide the lowest air leakage rates in the industry. By combining two layers of an autohesively factory bonded aluminum foil vapor barrier with zero perforations to the inner and outer closed cell phenolic insulation core, all protected with UV stable vinyl clad with solvent welded or cohesively bonded external seams...you simply cannot find a more air and water-tight outdoor exterior ductwork system anywhere. Combining the best available products and techniques to create the finest exterior air distribution product for outdoor ducting applications that can be manufactured.



This chart is based on SMACNA HVAC Air Duct Leakage Test Manual, 1995 Edition found in Figure 4-1 under "Duct Leakage Classification".

CODE COMPLIANCE

Thermaduct® will meet or exceed the current IECC energy codes and ASHRAE 90.1 Energy Standards for Buildings for both return and supply air ducts for both commercial and residential applications.

Thermaduct® is NFPA 90A compliant duct system, meeting the necessary requirements for safe and effective outdoor use. All manufacturing is compliant to SMACNA duct construction methods employing trained SMART Union building trade professionals.



Thermaduct products are patented systems.
Review these patents and more at
www.thermaduct.com/patents



training.thermaduct.com

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