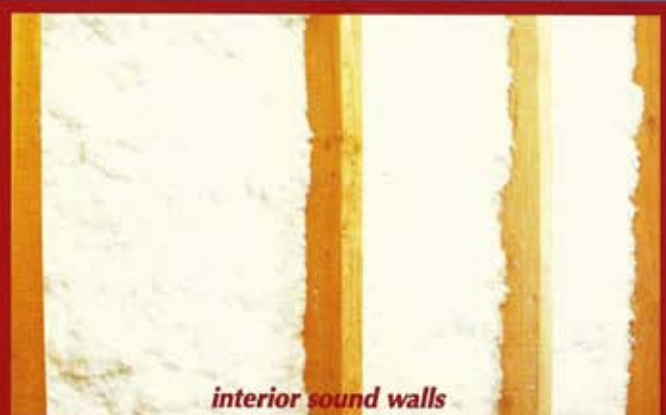


The versatile insulation system for residential, commercial and industrial applications

The FIBERIFFIC[®] ADVANTAGE



Spray apply insulation to surfaces without the mess and overspray of conventional systems.

The Fiberiffic® System is an innovative new method for applying insulation to various surfaces for thermal and acoustic benefits.

Applications include metal building walls, rim joists, foundation walls, and sound applications. Fiberiffic® has hundreds of additional uses.

Our patented technology internally combines a non-toxic foaming adhesive with ordinary insulation fibers, creating an insulation with the same consistency as shaving cream foam.

You get a clean, easy job with virtually no loose airborne fibers, over-spray or clean-up.

Fiberiffic® provides:

- *Simplified new and retro-fit applications with less masking and clean-up work.*
Unlike conventional, messy spray-on systems, other tradespeople can work on a Fiberiffic® jobsite while it's being insulated.
- *Savings on labor costs by eliminating the time-consuming job of cutting, fitting and hanging insulation boards or blankets.*
Custom-fitting Fiberiffic® insulation performs seamlessly.
- *Excellent acoustical properties & flame resistance.*
Unlike petrochemical-based foams, Fiberiffic® is worker and environmentally-friendly, more affordable and easier to install.
- *Flexibility*
Fiberiffic® is available to contractors as a self-contained machine or can be added to most insulation blowing machines as a licensed accessory.

Joist Seal

All builders realize the value of caulking windows and doors, yet sealing the rim joists is just as important for home energy savings and comfort. While conventional methods require labor intensive caulking, cutting, fitting and hanging, Fiberiffic® provides a one step, custom-fit solution.



Batt Seal

Standard batts can be turned into a custom wall system with Fiberiffic®. By first applying a foamy bead around the cavity, the batt can adhere perfectly, eliminating gaps, voids and shifting, especially in metal stud walls. The result is improved performance with minimal labor and material costs. Ordinary batts can be installed by anyone with a stapler and knife but Batt Seal is only available from certified Fiberiffic® contractors.

Chase Seal

Utility chases can be a source of heat loss and sound transmission, especially where plastic drain pipe is used. Fiberiffic® fills these voids, offering thermal insulation, quieting noisy pipes and stopping unwanted sounds.



Fiberiffic® Insulation Technology for new and existing metal buildings

Fiberiffic® is an ideal system for insulating metal buildings. It provides a fast, easy, seamless alternative to standard metal building insulation. Because it's applied after the building's skin is in place, concerns about weather-related damage are eliminated.

Fiberiffic® has recently introduced a new patented solution for re-insulating older buildings. A special fabric is attached to the old deteriorating vinyl back insulation. Fiberiffic® is then spray applied over the fabric.

(US Patent #6,584,749)

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DURING



AFTER

These pictures were taken inside an old factory with deteriorated, torn and missing vinyl-backed insulation. As you can see, Fiberiffic® goes on easily, creating an attractive, continuous surface that dramatically improves the thermal efficiency and acoustics of the building while also brightening the interior.



Summary of Tests Using the Fiberiffic® Insulation System

For these Tests, samples were prepared from virgin white loose fiberglass material (detailed test reports available from Ark Seal).

ASTM E-84-94

Surface Burning Characteristics of Building Materials

Flame Spread Index 0
Smoke Developed value 10
Class A Interior Wall & Ceiling Finish category

ASTM C739-91, Section 14.

Smoldering Combustion

Flame Spread 10
Smoke Developed 5
There was no flaming of any specimens.
Class A Interior Wall & Ceiling Finish category.

ASTM E-759, 1992

Substrate Deflection (Adhesion) Test on Foamed Fiber Insulation

There was no indication of spalling or delamination of Fiberiffic® under the influence of bending stress at a centerline deflection of 1" (25mm).

ASTM 665-91

Fungus Resistance of foamed fiber Insulation

Fiberglass sample evaluated at 0 (no observed growth on specimens) on scale of 0 to 4. "The submitted sample satisfied the Fungal Resistance test criteria."

ASTM C-518

Thermal Data for virgin white Loose Fiberglass Insulation Applied with the Fiberiffic® System.

	Sample Number			
	1	2	3	4
Density (pcf)	2.6	2.2	2.2	1.7
K-value	0.2285	0.2388	0.2397	0.2428
R-value/inch	4.38	4.19	4.17	4.12

Average for above 4 samples:

R-value/inch 4.21
K-value .23
Density 2.175pcf

ASTM C-655

Corrosion tests on metal

Steel: score 40, pass Copper: score 35, pass Aluminum: score 24, pass

UL 181

Air Erosion / Duct Test

At rated speeds of 400 ft/min & 1000 ft/min

"The sample showed no evidence of erosion over the test periods with little or no visible particles collected . . . This was true for both test speeds."

ASTM C423-90a

Sound Absorption on Insulation / Sound Absorbing Material

Fiberiffic® Panels, 2" thick, rough side up
NRC: 1.10

ASTM E90-97

Sound Transmission Loss

2" Fiberiffic® adhered to 24 gauge sheet metal
Sound Transmission Class: 27
Indoor-Outdoor Class: 23

ASTM E90-97

Sound Transmission Loss

Metal Stud Wall, 24 gauge metal studs 24" on center, 3 5/8" thick, 8' high, covered with 1/2" gypsum board, partially filled with Fiberiffic®.
Sound Transmission Class: 44
Indoor-Outdoor Class: 28

Fiberiffic® Insulation System

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Spray-on Insulation System

Fiberiffic®

PART 1 GENERAL

1.1 Summary

- A. Fiberiffic® is a patented process for spray applying thermal, acoustical and specialty high temperature insulation materials
- B. Retro fit and new construction
- C. Residential, Commercial and Industrial

1.2 References

- A. Referenced Standards
 - 1. American Society of Testing and Materials (ASTM)
 - a. ASTM E-84, Surface Burning Characteristics of Building Materials
 - b. ASTM C-739 Smoldering Combustion
 - c. ASTM E-759 Substrate Deflection
 - d. ASTM 665-91 Fungus Resistance
 - e. ASTM C-518 Thermal Transmission
 - f. ASTM C-423 Sound Absorption
 - g. ASTM E-90-97 Sound Transmission Loss
 - h. ASTM C-655 Corrosion Test (Blowing Wool)
 - 2. Underwriters Laboratory (UL)
 - a. UL181 Erosion Test

PART 2 PRODUCTS

2.1 Acceptable Manufacturers

- A. Fiberiffic® is a wholly proprietary system. Machines, nozzles, spray attachments and binders are manufactured, distributed, and/or approved for use by Ark-Seal, Inc., International, Denver, Colorado.

2.2 Materials/Equipment

- A. Only standard insulation materials, including fiberglass, rockwool, cellulose and ceramic fibers, which have been approved by Ark-Seal, Inc., International can be used in the Fiberiffic® system.
- B. All materials used must conform to the following:
 - 1. Non-Combustible
 - 2. Asbestos Free
 - 3. Non-Toxic
 - 4. Environmentally friendly
- C. Binder is a water based latex and non-toxic per industry standards.

2.3 Storage

- A. Ship and store products in accordance with manufacturer's recommendations.
- B. Binder and insulation material must be stored in a dry and protected area, off of the ground and in undamaged containers with labels intact.
- C. Do not use Fiberiffic® binder past the expiration date stamped on the label. Follow temperature use and other guidelines stamped on the label.

PART 3 EXECUTION

3.1 Installation

- A. Only qualified, trained contractors with current certification from Ark-Seal, Inc., International may install Fiberiffic®.
- B. Only approved equipment, materials and binder approved by Ark-Seal, Inc., International may be used in a Fiberiffic® installation.

3.2 Pre Installation Requirements

- A. Prior to beginning work, carefully inspect installed work of other trades and verify that such work is complete to point where Fiberiffic® can be installed in accordance with manufacturer's recommendations. Appropriate building inspections must be completed prior to installation.
- B. A surface which is dry, clean and free of oil, grease, dirt, loose paint or other matter that would impede the adherence of the product must be provided by owner or general contractor.
- C. Owner or general contractor to be responsible for maintaining a clear, clean and unobstructed work area. Access to the substrate area must not be impeded.
- D. Adequate electrical power, water, weather and wind protection, temporary light and heat, ventilation and hoisting to be provided by owner or general contractor as needed.
- E. Installer must check surface for adhesion, clean and prepare surface as needed, pre-spray dry or porous surfaces, install mechanical supports as needed, refrain from spraying onto metal surfaces during freezing or excessively high temperatures.
- F. Fiberiffic® binder must be mixed with clean, potable water free of all dangerous substances. Follow dilution guidelines on label.
- G. Adequate air circulation and dry heat is required during the curing cycle. Fiberiffic® must not be covered until fully cured.
- H. Ambient and substrate temperatures must not be lower than 34° F or 1° C during application and curing.

3.3 Installation

- A. Apply Fiberiffic® to areas specified.
- B. In cases where excessive thickness is required, or where substrate adhesion is questionable or subject to vibration, Fiberiffic® may have to be mechanically supported.
- C. Fiberiffic® may be left as a rough textured finish or troweled to a smooth finish for surface treatment, as per samples.
- D. Where required, install separate vapor retarder as indicated by architect or building codes.

3.4 Field Quality Control

- A. At the time of final inspection, if required, provide owner or general contractor with a written statement that insulation has been installed in accordance with specifications.