

DESCRIPTION

FlexClad-400™ is a patented, pre-fabricated self-adhering, sheet-type protective membrane. The outer layer is an embossed, UV-resistant aluminum weathering surface. Under the aluminum are multiple layers of tough, high-density cross-linked polyethylene. Under the polyethylene is a uniform layer of aggressive rubberized asphalt adhesive which sticks directly to metal, insulation facers and most other clean, dry surfaces. The self-adhesive surface is protected by a disposable release paper.

RECOMMENDED USES

Designed specifically to protect ductwork, apply FlexClad-400 over rigid board insulation, cold pipes, plenums and storage tanks. The product weatherproofs, resists water leaks and vapor transmission, preserves the efficiency of thermal insulation and reflects sunlight to reduce interior temperatures. FlexClad-400 is designed for exterior or interior use and it may be used in direct burial applications.

ADVANTAGES

- All-weather, light-weight, durable and tear-resistant – Use in place of rigid aluminum jacket or fabric/mastic systems
- Exceeds 25/50 Flame/Smoke Rating
- Self-stick application saves time, labor, materials, and equipment
- Seals at laps; resists moisture; protects metal & insulation
- Excellent elongation to accommodate structural movement
- Uniform thickness for optimum waterproofing performance
- Self-seals around punctures and penetrations

LIMITATIONS

FlexClad-400 is intended to act as a weatherproofing barrier. Do not use the product as a substitute for banding, pinning or other means of securely attaching insulation and underlying materials. Follow insulation manufacturer's instructions for attaching these products. FlexClad-400 is designed to protect insulation, air handling equipment and pipelines from the infiltration of outside moisture into the system. It is not designed to handle the effects of pressure-driven moisture caused by differential temperatures, air movement or extraordinary humidity. FlexClad-400 is not designed for permanent emersion in water.

PACKAGING

All cartons contain 100 ft² and are shipped 30 cartons per pallet. Cartons should be stored on end in a dark, dry place until ready to use. Product should be used within one-year.

HOW TO ORDER

Rolls of FlexClad-400 are 33.5' in length and are available in the following standard widths: 4", 6" and 36". Surface finishes available are Aluminum, Gray, Tan, or White.



Flexible, self-adhering weatherproofing barrier for pipe and ducts

TECHNICAL DATA

PROPERTY	ASTM	RESULTS
Heat Aging	D 794	No visible blistering or deterioration
Tear Resistance	D 1424	660 gram(avg)
Elongation	D 412	450% min
Low Temp Flex	MFM test	100,000 cycles@ -10° F 1200 cycles@ -20° F No Cracking
Water vapor transmission	E-96-95	0 perms
Flame spread index	E 84-97a	0
Smoke density index	E 84-97a	5
Wind-driven rain	Dade County TAS-100-95	No Leakage or Failure @100mph
UV stability	MFM test	Excellent
Nail sealability	D 1970	Pass
Thickness	D 1970	40 mils minimum
Outer Film	Multi-ply, cross laminated polyethylene with a protective aluminum surface	
Adhesive layer	Organically modified asphalt blend	
Installation Range	20° F - 105° F	
Maximum Operating Temp	175° F	

INSTALLATION

FlexClad-400 is a pressure sensitive product. Substrate must be properly prepared before installation. Always apply concentrated pressure to the entire surface of the membrane with a hand roller. Duct bottoms over 24" should be pinned. *Please consult Installation Instructions for complete details.*

LIMITED WARRANTY

MFM Building Products Corporation (MFM) warrants material to be free from leaks caused by defects in materials or manufacturing for a period of ten (10) years from the date of purchase when the membrane is installed according to published directions. *Please consult FlexClad-400 Limited Warranty for complete details.*

FlexClad-400 is covered by US Patent Nos. 4,936,938, 5,096,759 and 5,142,837



INSTALLATION INSTRUCTIONS

FLEX CLAD 400™

READ COMPLETE INSTRUCTIONS BEFORE INSTALLATION!

- Ducts must be sealed and airtight; insulation secured properly with seams taped and corners reinforced.
- Substrate must be clean & dry. Installation works best at temperatures above 35° F (1° C).
- To improve adhesion in cold weather and on the duct bottoms, use MFM Spray Adhesive.
- Ducts over 24" (60 cm) require use of pins on bottom of duct.
- Top of duct **must** be sloped for drainage to prevent standing water.
- Use over metal duct or on rigid insulation only!
- Pressure sensitive adhesive: always roll firmly with a hand roller, especially on seams and duct bottoms.

STEP 1: Prepare the Surface

- Clean, primed metal ductwork, and rigid foil-faced insulation (polyiso-board or FSK) are preferred substrates. FlexClad-400 may also be installed over rigid, foil-faced EPS and extruded polystyrene (XPS) insulation. Do not use over non-rigid insulation!
- Surface must be free of dust, dirt, oil, dew, moisture, frost and other foreign material that will prevent proper adhesion. Wipe surface with acetone to remove oils, grease, hand prints, and processing lubricants.
- Insulation without a foil-facing, such as extruded polystyrene, requires the use of MFM Spray Adhesive.
- Prime bare metal surfaces with MFM Prime-A-Seal or asphalt primer.
- HINT: Use metal reinforcing strips on insulation corners to maintain shape for a neat appearance.
- HINT: Tape gaps between insulation boards.



STEP 2: Measure & Cut

- Measure the length of FlexClad-400™ needed and cut with utility knife or scissors.

STEP 3: Use MFM Spray Adhesive (optional)

- MFM Spray Adhesive improves adhesion in cold weather, on shaded surfaces, and in hard-to-reach areas.
- Apply a light coat of MFM Spray adhesive and let dry for a minimum of 30 seconds or until no longer wet.



STEP 4: Apply FlexClad-400

- Position pre-cut piece of FlexClad-400 into place.
- Remove release paper from one end of FlexClad-400 and stick membrane into position and align.
- Pull release paper from behind the membrane and continue to press FlexClad-400 into place.
- Roll entire surface firmly with a hand roller.



Position FlexClad-400 into place.



Remove release paper, align membrane and press to stick.



Pull release film from behind membrane and continue to press into place.



Roll entire surface firmly with a hand roller to ensure good adhesion.

STEP 5: Applying More FlexClad-400

- Overlap FlexClad-400 3" (8 cm) on side laps and 6" (16 cm) on end laps.
- HINT: Use a tape measure to mark overlaps. Measure and press end of tape into membrane to leave an overlap mark. (see photo at right)
- Firmly roll all seams and edges with a hand roller to ensure good adhesion!
- COLD WEATHER HINTS: Keep rolls of FlexClad-400 in a warm place until ready to apply. Use MFM Spray Adhesive before applying FlexClad-400.



Additional Hints:



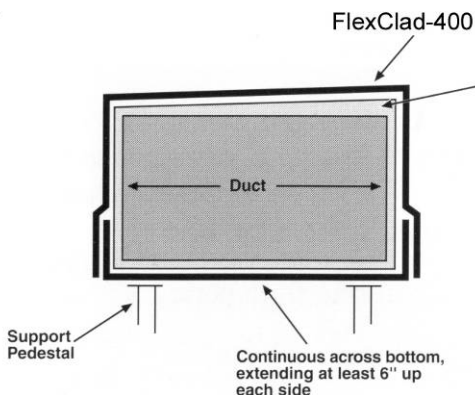
On ducts over 24" (60 cm) in width, pin bottom on 12" (30 cm) centers. Cover pins with a 3" (8 cm) square minimum of FlexClad-400.



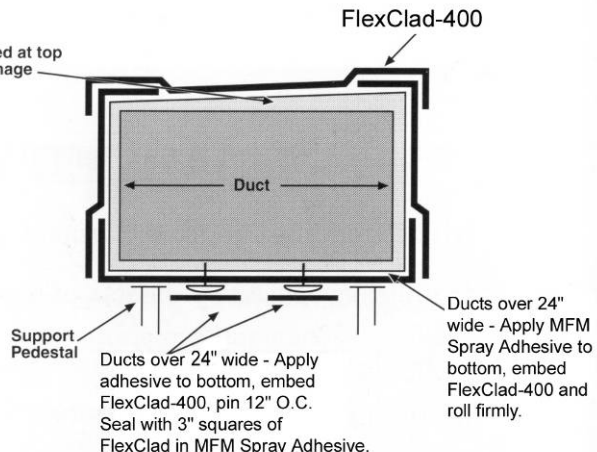
Duct work with air leaks will cause the FlexClad-400 to "balloon," creating adhesion problems and seam leaks. If this is a problem, a roof soffit vent may be added in a sheltered location to relieve air pressure.



Proper Installations:



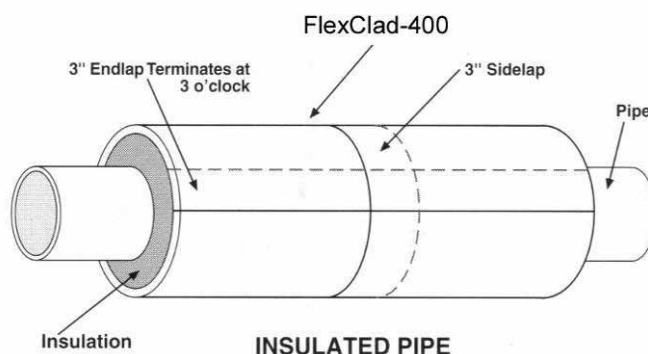
AIR DUCT CROSS SECTION



**AIR DUCT CROSS SECTION
ALTERNATE FOR LARGE DUCTS**

TEN-Year LIMITED WARRANTY

MFM Building Products Corporation (MFM) warrants material to be free from leaks caused by defects in materials or manufacturing for a period of ten years from the date of purchase when the membrane is installed according to published directions. This warranty does not apply to misapplication or poor workmanship in the application of FlexClad-400. MFM's only obligation shall be to repair or resupply, at its option, that portion of the defective FlexClad-400 membrane where leaks occur, prorated for time of service. MFM shall be liable for no additional remedies, hereby expressly denying any other claims for damages, whether direct or indirect, consequential or incidental, including but not limited to property damage, personal injury to the buyer or to third parties and loss of business or profit arising from the use or inability to use the product. Any implied warranties arising under state law are limited to the duration and terms of the express warranty.



INSULATED PIPE

WARNINGS

- Follow instructions carefully. MFM not responsible for failure caused by improper installation, structural faults or failure of underlying or adjacent materials.
- FlexClad-400 is slippery when wet. Avoid falls by using proper safety equipment and monitoring devices.
- Aluminum FlexClad-400 is reflective and can contribute to sunburn. Protect skin and eyes and avoid prolonged exposure in direct sun.
- Store material in a dry place. Keep FlexClad-400 in carton until use. Exposure of stored material to direct sunlight or water will reduce adhesion.

For Technical Support contact MFM:

1-800-882-7663

**Monday—Friday,
8:30 AM—4:30 PM Eastern Time**

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