

Project:

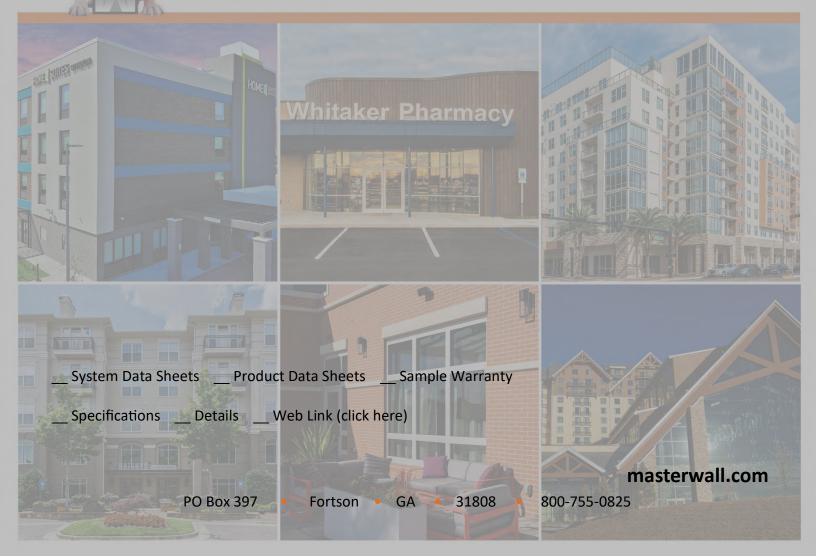
Location:

Architect:

**General Contractor:** 

Applicator:







# LiMa i410TV Light Masonry Wall System

The LiMa i410TV thin brick and stone system is an insulated cladding system.

It features our Rollershield air and water barrier product that is either rolled, sprayed or troweled in place. With any method, the product offers excellent water holdout capabilities compared to a sheet good and has class-leading air sealing capability.

The UltraBond adhesive has class leading slump resistance and cures quickly to quickly get your wall system in service.

CIFS® Brick Mortar is available in four colors and mixes easily.

#### **Features & Benefits**

- 10-year limited warranty
- Extremely low air infiltration properties
- Rollershield seals around nail holes
- Rollershield options
  - Rollershield-RS, vapor open roll grade
  - Rollershield-TG, vapor open trowel grade
  - Rollershield-VB vapor closed roll grade
- Follows Rollershield Drainage CIFS® application process with brick or stone cladding



- 1. Wood or Metal Framing
- 2. Approved Substrate
- 3. Rollershield (1 or 2 coats)
- 4. Master Wall® Adhesive
- 5. Master Wall® Insulation Board
- 6. Master Wall® Base Coat
- 7. Master Wall® Medium Mesh
- 8. Master Wall® Base Coat
- 9. UltraBond Adhesive
- 10. Thin Brick or Stone
- 11. CIFS® Brick Mortar



## LiMa i410TV Light Masonry Wall System

#### **LiMai410TV Specification**

#### Section 04 70 00

#### 1.0 General

This is a specification for the application of a Master Wall® Rollershield Drainage CIFS® with Light Masonry (LiMa) application over wood or metal framing and approved substrates. This system is limited to lower floor levels below 40' in height and/or Type V construction.

1.1 System Description

The Master Wall® LiMai410TV is a light masonry stone or thin brick application over a Rollershield Drainage CIFS® application. It uses two coats of SuperiorShield Rollershield as the air and water barrier with F&M or MBB as the adhesive for the insulation board and to embed the mesh. UltraBond adheres the ICC-ES AC51 compliant stone or thin brick with CIFS® Brick Mortar.

- 1.2 Design Requirements:
  - A. Reference Master Wall® suggested details and architectural drawings for specific detail requirements.
  - B. Slope all surfaces a minimum of 1:2 (6" in 12") to shed water, maximum 12" (305mm) wide.
  - C. Maximum deflection of substrates shall not exceed L/600.
  - D. Typical acceptable substrates include CDX exterior grade plywood, Exposure 1 Oriented Strand Board (OSB), ASTM C1177 exterior gypsum sheathing, concrete, masonry or other approved substrates noted on the Rollershield-RS data sheet.
  - E. Expansion joints are required in the cladding at building expansion joints, panel joints, floor lines in wood framed construction, and other areas where significant movement occurs.
- 1.3 Quality Assurance
  - A. The Rollershield air/water barrier shall be recognized in IAPMO ER-0384.
  - B. SuperiorShield product bulletins, application instructions and details.
  - C. Rollershield Drainage CIFS® product bulletins, application instructions and attachment methods.
- 1.4 Job Conditions
  - A. Store all materials protected from weather and direct sunlight at temperatures above 40oF (5oC).
  - B. The ambient and wall temperature shall be a minimum of 40oF (5oC) and shall remain so for at least 24 hours after installation.
- 1.5 Warranty
  - A. Application shall include a 10-year limited warranty, please reference the LiMa Warranty Program Limited Warranty.

#### 2.0 Products

All components of the LiMa application shall be manufactured by Master Wall® and supplied by an authorized distributor.

- 2.1 SuperiorShield Water Barrier & Flashing Tapes:
  - A. SuperiorShield Rollershield RS: A 100% pure acrylic-based roll-applied weather-resistive barrier.
  - $B.\ Superior Shield\ Rollershield\ TG:\ A\ 100\%\ pure\ acrylic-based\ trowel\ grade\ water-resistive\ barrier.$
  - C. SuperiorShield Rollershield VB: Acrylic-based vapor barrier water resistive barrier.
  - D. SuperiorShield Flashing Tape: A lightweight nonwoven joint treatment material.
  - E. SuperiorShield Mesh Tape: A lightweight joint treatment material.
  - F. SuperiorFlash: A single-component fluid applied flashing.
- 2.2 Master Wall® Insulation Adhesive: Foam & Mesh (F&M) or Master Wall Bagged Base (MBB) adhesive.
- 2.3 Master Wall® Insulation Board:
  - A. ASTM C578, Type I Insulation Board.
  - B. Other insulation board types as referenced in Rollershield Drainage CIFS® applications.
- 2.4 Master Wall® Mesh:
  - A. Medium Mesh
  - B. Other mesh types heavier than Medium as referenced in Rollershield Drainage CIFS® applications.
- 2.5 Master Wall® Base Coat: Foam & Mesh (F&M) or Master Wall Bagged Base (MBB) base coat.
- 2.6 Master Wall® Stone/Thin Brick Adhesive: UltraBond, A ready to use dry base adhesive that is field mixed with water.
- 2.7 CIFS® Brick Mortar: A ready to use dry base mortar that is field mixed with water.

#### 3.0 Installation

- 3.1 Inspect the substrate to ensure that it is free of all foreign materials that would affect the adhesion of the Rollershield air and water barrier. Follow Rollershield Drainage CIFS® specification and details for the application and as outlined below.
- 3.2 Apply the Rollershield products in accordance with the product data sheets, minimum single coating with a dry mil thickness of at least 10 mils.
- 3.3 Backwrap insulation board as required in the Rollershield Drainage CIFS detailing and flash as required.
- 3.4 Adhere the insulation board to the Rollershield using a vertical notched adhesive application method, following data sheet and Rollershield Drainage CIFS® application methods using F&M or MBB as the adhesive. Allow to cure at least 8 hours before proceeding with the application.
- 3.5 Lightly rasp the insulation board.
- 3.6 Apply wet F&M or MBB to the insulation board surface with a stainless-steel trowel approximately 1/16" (1.6 mm) thick and immediately embed mesh into the wet base coat. Lap mesh 2-1/2" (63.5 mm) minimum on all sides per typical system recommendations. Trowel smooth so that no mesh color is visible. Allow to cure at least 8 hours before proceeding with the application.
- 3.7 Adhere ICC-ES AC51-compliant stone or thin brick using UltraBond, mixed following data sheet instructions. Allow to cure before proceeding with mortar application.
- 3.8 Mortar with CIFS® Brick Mortar, mixed with water following data sheet instructions. Place in joints using a grout bag or similar device and rake/tool when thumb print hard.
- 3.9 Allow the wall system to cure and protect from weather for at least 72 hours before placing in service.

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#### SUPERIORSHIELD ROLLERSHIELD-RS

SuperiorShield Rollershield-RS is a high quality 100% acrylic flexible fluid applied air and water barrier that is easily applied with a roller or spray equipment but also can be troweled or brushed into place. Rollershield-RS forms a continuous air and water barrier that protects approved substrates from incidental water damage.

#### **FEATURES & BENEFITS**

- Used as an air/water barrier or as part of the Rollershield Drainage CIFS® System
- 100% Coverage, Fully adhered to substrate
- Vapor open/permeable with low air infiltration rate
- Used as water barrier and flashing, 60-minute Grade D equivalent
- Compatible with other SupeiorShield products; Rollershield-TG (Trowel Grade), Rollershield-VB, SuperiorFlash and WeatherSTOP Tape
- Adheres to most common building materials
- Easy to apply, water based for easy cleanup
- Exposure up to 6 months
- Low VOC, <1% by weight, 10 g/L

Application Temperature: 40°-110°F (5°-43°C)

Dry to Touch: 1 hour @ room temperature

Recoat Time: 2 hours @ room temperature

Drying Time: 12 hours @ room temperature, working and drying time will

vary with temperature and humidity.

#### JOB CONDITIONS

Air and substrate temperature for application of Rollershield-RS must be  $40^{\circ}F$  (5  $^{\circ}$  C) or higher and must remain  $40^{\circ}F$  (5  $^{\circ}$  C) or higher for a minimum of 24 hours. Provide temporary protection to protect the wall system from damage until permanent flashings, caps and sealants are installed. Store materials within prescribed temperature limits and out of direct sunlight. Working and drying times are based upon normal room temperature conditions and will vary with temperature and humidity.

#### **PREPARATION**

The substrate must be approved by Master Wall Inc. $\Re$ , clean, dry, structurally sound, and free of efflorescence, oil, grease, form release agents and curing compounds or anything that would affect bond. Painted surfaces are not acceptable and must be removed or bond test performed. Substrates must be flat and free of fins or planar irregularities greater than 1/4" in 10'-0" (6.35 mm in 3.05 m).

#### Coverage per pail (sf/sm)\*

Roller: 450-500 sf (42-46 sm)

Spray: 300-350 sf (28-32.5 sm) Trowel: 200-250 sf (18-23 sm)

\*All coverage is approximate and depend upon substrate, details and individual application

#### Packaging/Shelf Life/Storage

Packaging: 5 gallon (19L) pail

Product Color: Naranja Durazno

Shelf Life: 2 years

Storage: Protect from extreme heat (90°F

(32°C), freezing and direct sunlight.

#### **Technical Data**

Solids Content: 69.52% solids by wt (55.05% by vol)

Tensile Bond, ASTM C297/E2134/AC212: 30-200 psi

Freeze-thaw ASTM E2485/AC212: Pass

Water Resistance, ASTM D2247/AC212: Pass

Water Vapor Transmission, ASTM E96 Proc. B/AC212: 30 perms\*\* @ 10 mils, 15 perms @ 20 mils

Air Permeance, ASTM E2178: 0.001 cfm/ft2 @ 1.57 psf, 0.001 L/s/m2 @ 75 Pa

Air Leakage, ASTM E2357: 0.0006 cfm/ft2 @ 1.57 psf (0.003 L/s/m2 @ 75 Pa), 0.04 cfm/ft2 @ 6.24 psf (0.02 L/s/m2 @ 300 Pa)

Structural Performance, ASTM E1233/AC212: Pass

Racking, ASTM E72/AC212: Pass

Restrained Environmental, AC212: Pass

Water Penetration, ASTM E331/AC212: Pass

UV Exposure: Rated to 6 months

Accelerated Aging, AC212: Pass

Hydrostatic Pressure Test, AATCC 127/AC212: Pass

Surface Burning Characteristics, ASTM E84: Flame Spread < 25, Smoke Developed < 450

Intermediate Multi-Story Fire Test, NFPA 285 (UBC 26-9): Pass

Nail Sealability, ASTM D1970: Pass @ 22 mils

Heat and Smoke Release Rates, ASTM E1354, IBC Section 1403.5: Peak Heat Release Rate = 32 kWm2, Total Heat Release Rate = 3.6 MJ/m2, Effective Heat of Combustion = 2.5 MJ/kg

\*\* Defined as a Class III vapor retarder per IBC and IRC

#### APPLICATION PROCEDURE

Concrete – Must have cured a minimum of 28 days prior to the application of Rollershield-RS. If form release agents or curing compounds exist on the surface, they must be removed with a solution of muriatic acid or similar product (with appropriate precautions). Remove any residual acid by flushing with water.

Brick/Masonry – If joints are not struck flush, multiple coats may be required. Porous CMU may require additional coats.

Sheathing Applications - Sheathing gaps must be less than 1/4" (6.4 mm). See Technical Bulletin #189 for larger gap suggestions. Gap wood-based sheathing per manufacturers recommendations, typically 1/8" (3.2 mm) minimum.

Mixing - Thoroughly stir Rollershield-RS into a homogenous consistency. Do not add water, over mix, or add accelerators or retarders to the product.

Application – Rollershield-RS is applied by first treating the joints and fastener locations where sheathing is used, then coating the entire surface using brush, roller, trowel, or airless spray equipment techniques. When using a foam roller, a maximum ¾" (19 mm) nap is recommended. Apply in an even, continuous coat, maintaining a wet edge of approximately 15 mils thickness. Oriented Strand Board and other porous substrates will require two (2) coats of Rollershield-RS. For moisture protection, apply Rollershield-RS as a continuous barrier of 10 mils dry thickness with no breaks or skips, although some areas will appear lighter than others due to the application process. The application need not look like a painted surface.

Joint Treatment—Apply a thin layer of Rollershield-RS to the joints and embed SuperiorShield Flashing Tape into the wet mixture and trowel smooth. Alternatively place and center SuperiorShield Mesh over all joints, corners, and gaps in the substrate. Immediately apply Rollershield-RS over the mesh and allow to dry.

Rollershield-RS may be flashed into window, door and other openings using the same techniques for sheathing applications. Any remaining gaps should be filled with additional Rollershield-RS, TG (Trowel Grade) or SuperiorFlash.

Wall Treatment—Apply Rollershield-RS to the wall surface using the foam roller, trowel or by spray applying and backrolling to a uniform thickness of 15 mils wet, 10 mils dry with no pinholes or voids.

#### **LIMITATIONS**

Not for use as an exterior finish, note exposure limitations on front page.

When adhering Rollershield Drainage CIFS® to the surface assure it is clean, dry, and free of surface contamination. Remove any dirt or surface contamination before adhesive attachment.

Allowable in-service temperature range: -40° to 180°F (-40° to 82°C).

Fire-retardant or pressure treated plywood must be dry with surface free of salts or other chemicals migrating from within the wood. Test adhesion to be sure of desired results.

Use a slip sheet, typically one layer of building paper between Rollershield-RS and stucco or adhered masonry veneer over metal lath.

**Hazard:** This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

#### **Approved Substrates**

Exterior gypsum sheathing (ASTM C1396)

Glass Fiber Exterior Sheathing (ASTM C1177): Dens Glass Gold®, GlasRoc®, FiberBond®, Gold Bond e2xp®, etc.

Cement Board Substrates (ASTM C1325): Durock®, PermaBase®, ProTEC ®, SelectCrete, Util-A-Crete®, etc.

Concrete

**Brick** 

Masonry

**Exterior Plywood** 

Oriented Strand Board (OSB)

Huber Zip (See Data Sheet for Specifics)

Most metals and PVC

Others approved in writing

#### Compatible SuperiorShield Components

Rollershield-TG SuperiorFlash SuperiorShield Flashing Tape SuperiorShield Mesh WeatherSTOP Tape

#### Sealant Bond Compatibility\*\*

Adfast Corp.: Adseal DWSP1940 Series\*\*\*, Adseal 4600, Adseal 4580, Adseal 1940

Dow Corning: 795 Silicone\*\*

Pecora Corp.: 864NST, 890NST, 890FTS, 895NST<sup>A</sup>, Dynatrol I-XL Hybrid<sup>B</sup>

Sika: Silaflex 15 LM\*\*\*, Silaflex-2C NS\*\*\*

Master Builders Solutions: MasterSeal NP1\*\*\*

Tremco: Dymonic 100\*\*\*

Most polyurethane sealants\*\*

See Technical Bulletin MW#131 for latest sealant information

\*\*field verify bond (varies)

\*\*\*Also bonds to SuperiorFlash

AWith P120 Primer with Rollershield RS & TG BWith P120 Primer with Rollershield VB

#### **SPRAY APPLICATION**

Rollershield-RS is compatible with GRACO and Titan airless spray equipment with the following specifications:

- · Minimum 1 gallon per minute output.
- Minimum hose width of 3/8 inch.
- Minimum tip size of 0.027-0.031.

Minimum pressure requirement to spray of 2,000 psi at the gun with an airless sprayer rated no lower than 3,300 psi. Remove all filters in sprayer and gun before application.

Hopper Gun: 3/16"-1/4" (6-6.5 mm) orifice, 23-25 psi.

#### **CLEAN UP**

Tools and equipment can be cleaned with soapy water when Rollershield-RS is wet.

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#### **Health & Safety**

#### WARNING!

Causes eye and skin irritation.

**Precautionary Statement** 

Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

#### FIRST AID MEASURES

Eye: Contact Rinse thoroughly with water as necessary. Get medical attention immediately if symptoms occur.

Skin: Contact Wash off with water. Consult a physician if necessary.

Inhalation: Move to fresh air. If symptoms arise, call a physician.

Ingestion: Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting.

Consult a physician. Never give anything by mouth to an unconscious person.

Store locked up. Dispose of contents/container in accordance with Local, State, Federal and Provincial regulation.

Spills: Collect with suitable absorbent material such as cotton rags.

Disposal: Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY.

Consult the Safety Data Sheet (SDS) in the Products section at masterwall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.





### SUPERIORSHIELD FLASHING TAPE

Lightweight non adhesive roll flashing material with superior strength and the ability to bridge most gaps or voids common in construction. Embedded into wet Rollershield-RS, TG or VB, it is used at flashing transitions with Master Wall® SuperiorShield Liquid Air/Water Barrier (LAB) and as part of Rollershield Drainage CIFS® applications. The tape easily embeds into wet Rollershield and dries to a highly reinforced yet flexible flashing.

#### **FEATURES & BENEFITS**

- Lightweight
- Strong
- Embeds easily
- . Thin, will not build up wall surface
- Compatible with Rollershield RS, TG, VB and SuperiorFlash products

#### **JOB CONDITIONS**

Air and substrate temperature for application of SuperiorShield Flashing Tape must be 40°F (5°C) or higher. Follow Rollershield-RS, TG or VB temperatures and condition requirements.

#### **PREPARATION**

General—The substrate must be clean, dry, structurally sound, and free of efflorescence, oil, grease, form release agents and curing compounds. Test painted surfaces to verify bond.

Temporary Protection – Protect from weather until the Rollershield-RS, TG or VB products have set up.

Surface Preparation - Surface temperature must be above 40°F (5°C). Surface must be cured, clean, dry, structurally sound, and free of efflorescence, oil, grease, form release agents, and curing compounds.

#### Coverage estimate\*

4x8 sheets: Square Footage x 0.37 = linear feet of tape

Add linear footage around windows, doors, and other openings.

\*All coverage is approximate and depend upon substrate, details and individual application

#### Roll Sizing/Packaging/Shelf Life/Storage

4"x180' (10.2cm x 54.9m)

6"x180' (15.2cm x 54.9m)

9"x180' (22.9cm x 54.9m)

Packaging:

4": 18 rolls per case.

6" & 9": 12 rolls per case.

Shelf Life: 2 years plus

Storage: Protect from extreme heat (90°F

(32°C), and direct sunlight.

#### APPLICATION PROCEDURE

General - SuperiorShield Flashing Tape is embedded into wet Rollershield-RS, TG or VB at flashing transitions (sheathing to framing, flashing, penetrations, etc.) and at sheathing board joints. Apply a generous layer of the product using a trowel, brush or roller and immediately embed the SuperiorShield Flashing Tape into the product and draw it tight and smooth working from the center to the edges.

Windows – The unique properties of the SuperiorShield air/water barrier system allows window flashing prior to the Rollershield wall application. Apply Rollershield and center SuperiorFlash Flashing Tape to provide at least at least 1" (25 mm) bond to the window flange and substrate on either side of the window opening. Use a "butterfly" at corners to complete the application making sure it covers all corner joints. For best results make sure the Rollershield covers the entire head, jamb, and sill areas. The use of sill wedges or water stops is encouraged.

Sheathing Applications — Apply Rollershield at least 2" (51 mm) either side of the sheathing board joint. Immediately embed the SuperiorShield Flashing Tape into the wet Rollershield and smooth with a trowel, centering it over the joint. Provide at least at least 1" (25 mm) bond either side of the sheathing joint. Lap Rollershield Mesh Tape 2" (51 mm) minimum Rollershield field application can begin as soon as the Rollershield is dry to the touch.

**Hazard:** This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

VOC: Less than 50 g/L.

#### **Approved Materials for Embedment**

Rollershield-RS Rollershield-TG Rollershield-VB Others approved in writing

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#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.





# Master Wall® Insulation Board — Type I

Master Wall® Insulation Board is a high performance insulation material that is used to wrap the entire building to keep interior temperatures more consistent. It helps to reduce thermal bridging at framing members and is easy to cut, rasp and place. It may be custom formed into various decorative shapes. Packaged in 144 board foot bundles, each bundle weights approximately 12 lbs (5.44 kg) and is available in flat or drainage configurations.

#### Packaging/Shelf Life/Storage

Packaging: 144 board foot bundles\*

Coverage by Thickness:

3/4" (19.2 mm): 24 pcs, 192 sf (17.84 sm) 1" (25.2 mm): 18 pcs, 144 sf (13.38 sm) 1-1/2" (38.2 mm): 12 pcs, 96 sf (8.92 sm) 2" (50.8 mm): 9 pcs, 72 sf (6.69 sm) 3" (76.2 mm): 6 pcs, 48 sf (4.46 sm) 4" (101.6 mm): 5 pcs, 40 sf (3.72 sm)

\*Varies by manufacturer facility

#### Board thickness:

Maximum 4" (102mm) Minimum 3/4" (19.1mm) Drainage Board 1.5" (38.2 mm)+

Board width, max.: 24" (610mm) Board length, max.: 48" (1219mm)

#### Technical Data

Meets or Exceeds ASTM C578, ASTM C273, ASTM E2430, ASTM E2568.

ASTM C578, Type I, Wall Specification Grade

Minimum Density: 0.90 pcf

R-Value (U-Value) at 75°F (9°C): 3.8 (0.28)

Compressive strength, min., PSI (kPa): 10.0 (69)

Tensile strength min., PSI (kPa): 15.0 (103) Flexural Strength, min., PSI (kPa): 25.0 (172)

Water Vapor Permeance of 1.00 in (25.2 mm) thickness,

max., perm (ng/Pa.s.m<sup>2</sup>): 5.0 (287)

Water absorption by total immersion, max., volume, %: 4.0

Dimensional stability (change in dimensions), max., %: 2.0

Oxygen index, min., volume, %: 24.0

Flame spread, max.: 25.0

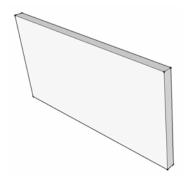
Smoke development, max. 450

For a full listing of approved manufacturers please reference the insulation board page at masterwall.com

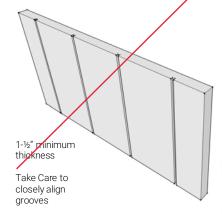
#### Features & Benefits

- Continuous Insulation for Wall Assemblies
- Easily cut into shapes for decorative trim
- Reduces air movement in wall
- Reduces life cycle CO2 emissions
- Controls dew point / moisture condensation in wall
- Long lasting, strong, stable
- Contains no CFC, HCFC, HFC or formaldehyde
- Recyclable
- Cost effective

#### Flat Insulation Board



### **Grooved Insulation Board**

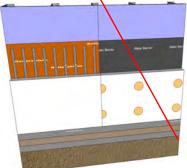


#### **Attachment Methods**

Wavy Insulation Board

1-1/2" minimum

thickness



Systems Shown: Rollershield Drainage EIFS with adhesive attachment (Left), Aggre-flex Drainage with mechanical attachment (Right)



# Master Wall® Insulation Board — Type I

#### **Application Procedure**

Job Conditions - Follow directions on adhesive data sheets. Mechanical attachment of insulation boards may be performed at lower temperatures over a dry surface.

Temporary Protection – Provide temporary and permanent protection to prevent water entry behind the system.

Substrate Preparation – Applications must be to an approved substrate with a maximum variation tolerance of 1/4" in 10'-0" (6.4 mm in 3.05m). Contact Master Wall for approved substrates and recommended attachment methods.

#### Application

The Insulation Board can be easily cut using handsaws, power saws, sharp knives, or thermal cutting tools. Rasping of the Insulation Board is completed with 12 grit sandpaper, manually or with air or electric rasping machines.

Follow data sheet recommendations for adhering insulation board to approved substrates. For mechanical attachment, fasten the Insulation Board to the approved substrate using Wind-Lock Wind-Devil 2 or other approved plastic plates. See Master Wall System Details for more information. Fastening patterns shall be determined by the requirements of the geographical conditions of the area, local code requirements, and the performance of the fasteners, retainers and their test results in conjunction with the specified substrate and the thickness of insulation board specified for use. Minimum 1" (25.2 mm) thickness for mechanically attached systems.

Install insulation board on the wall according to specification requirements. For further information and details, see the Master Wall System Application Instructions.

#### **Limitations**

The minimum required thickness for insulation board in the Master Wall Aggre-flex EIF System and Rollershield Drainage CIFS® is ¾" (19.2 mm) at any location on the wall.

Insulation board shall not be used in interior applications.

Residential applications require a secondary water barrier with the option of flat insulation board with profiled water barriers or drainage insulation board. See Aggre-flex Drainage Details for insulation board construction.

Product description information and basic uses etc.

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#### F&M ADHESIVE AND BASE COAT

Foam & Mesh Adhesive (F&M) is a 100% acrylic formulated high performance base coat and adhesive used in Master Wall® Systems or over prepared substrates including brick, masonry, concrete and stucco.

#### **FEATURES & BENEFITS**

- Adheres insulation board to approved substrates
- Base coat for Master Wall CIFS®, EIFS and other Systems
- Leveling coat for Cemplaster Fiberstucco and other stucco products
- Excellent water resistance
- Mixes 1:1 with Portland cement to a creamy consistency
- 100% Acrylic Polymers for durability
- Water-based easy clean up with water

Application Temperature: 40°-110°F (5°-43°C)

Working Time: 1 hour

Set Time: Varies with temperature and humidity

Dry Time: 12 hours at room temperature, working and drying time will vary

with temperature and humidity.

#### JOB CONDITIONS

Air and substrate temperature for application of F&M must be  $40^{\circ}F$  ( $5^{\circ}C$ ) or higher and must remain  $40^{\circ}F$  ( $5^{\circ}C$ ) or higher for a minimum of 24 hours. Provide temporary protection to protect the wall system from damage until permanent flashings, caps and sealants are installed. Store materials within prescribed temperature limits and out of direct sunlight. Working and drying times are based upon normal room temperature conditions and will vary with temperature and humidity.

#### **PREPARATION**

The substrate must be approved by Master Wall Inc.®, clean, dry, structurally sound and free of efflorescence, oil, grease, form release agents and curing compounds or anything that would affect bond. Painted surfaces are generally unacceptable without evaluation. Reference Technical Bulletins #173 and #187 for additional information.

#### Coverage per pail (sf/sm)\*

Adhesive & Standard Base Coat:

120 sf (11 sm)

Embedding Single-layer of Mesh:

240-280 sf (22-26 sm)

Double Layer of Mesh:

80-230 sf (7.5-21 sm)

Notched Trowel Adhesive Application:

135 sf (12.5 sm)

\*All coverage is approximate and depend upon substrate, details and individual application

#### Packaging/Shelf Life/Storage

Packaging: 5 gallon (19L) pail

Pail Weight: 60 lbs (27 kg)

Shelf Life: 2 years

Storage: Protect from extreme heat - 90°F (32°C) and above, freezing and direct

sunlight.

#### **Technical Data**

ASTM C297/E2134 - min 30 psi (208 kPa)

ASTM D897 - min 22 psi (152 kPa) ASTM

D2247 - Pass

ASTM E84 - Pass

ASTM E96 - 12 perms

ASTM E331 - Pass to 12.0 psf (575 Pa)

ASTM E2485/EIMA 101.01\* - Pass NFPA

268\* - Pass

NFPA 285 (UBC 26-9)\* - Pass

\*part of a larger assembly

#### APPLICATION PROCEDURE

Mixing - Thoroughly stir F&M using a heavy duty 1/2" (12.7 mm) drill at 400 to 500 rpm and a heavy duty mixing paddle. Pour half of the stirred F&M into a clean plastic pail. Add Type I or I-II Portland cement to the half pail of F&M in a ratio of one-to-one by weight and mix to a homogenous consistency. Let the mixture stand for 3 to 5 minutes and then stir to a creamy consistency. Up to 30 ounces (0.9L) of clean, potable water may be added to a half pail to adjust workability. Do not over mix as faster setting or reduced working time can occur. Do not add accelerators or retarders to the F&M mixture.

#### **APPLICATION**

ADHESIVE APPLICATION – Over gypsum or Rollershield coated substrates, apply the F&M mixture directly to the back of the insulation board using a  $3/8" \times 3/8" \times 3/8" \times 3/8" \times 9.5 \times 9.5 \times 9.5$  mm) or a  $3/8" \times 1/2" \times 1-1/2" (9.5 \times 13 \times 38 \text{ mm})$  stainless steel notched trowel. With the trowel at a 45-degree angle, cover the entire back of the insulation board with full beads of adhesive. Apply the adhesive so the ribbons run vertically when applied to the wall.

Over non-gypsum substrates where drainage is not required, you may use the above described notched trowel method or the 'ribbon and dab' method. Using a stainless steel plastering trowel, apply a 2" (50.8 mm) wide by 3/8" (9.5 mm) high ribbon of the F&M mixture around the entire perimeter of the insulation board. Place 8 dabs of the F&M mixture 3/8" (9.5 mm) thick by 4" (102 mm) in diameter approximately 8" (204 mm) on center inside the ribbon.

Immediately place the prepared insulation board on the substrate. Make sure that all edges of the insulation board are abutted tightly and that no F&M mixture gets into the board joints. Do not allow the F&M mixture to form a skin prior to placing the insulation board on the substrate. Do not apply the F&M mixture directly onto the substrate.

BASE COAT APPLICATION – Over insulation board, all imperfections in the board must be rasped flush and any gaps in the insulation board must be filled with slivers of insulation. Apply the F&M mixture over the entire surface of the insulation board in a thickness greater than that of the reinforcing fabric being used (approximately 1/16" (1.6 mm) for standard mesh and 3/32" (2.4 mm) for Ultra Mesh). Immediately embed the reinforcing fabric into the wet F&M mixture and smooth from the center to the edge to avoid wrinkles. The reinforcing fabric must be continuous at all corners and lapped or abutted in accordance with Master Wall® specifications. The color of the mesh shall not be visible, but a slight mesh pattern may be visible.

As a leveling coat over approved concrete, masonry, stucco, and other surfaces, apply the F&M mixture over the entire surface a nominal 1/16" (1.6 mm) thick. Where reinforcing mesh is specified, follow application methods for insulation board above.

**Hazard:** This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

VOC: Less than 50 g/L.

#### **Approved Substrates**

Exterior gypsum sheathing (ASTM C1396, C1177)

Dens Glass Gold®

GlasRoc®

FiberBond®

Gold Bond e2xp®

Securock®

Weather Defense Platinum™

Cement Board (ASTM C1325)

**Durock®** 

PermaBase®

Util-A-Crete®

ProTEC®, ProGUARD®

Concrete

Brick

Masonry

Metal Lath - Adhesive Application

Adheres to Rollershield

Others approved in writing

#### **CLEAN UP**

Tools and equipment can be cleaned with soapy water while the F&M is still wet.

#### WARNING, THIS PRODUCT CONTAINS SILICA

If sanding or scraping are performed, ventilate work area and/or use a NIOSH/MSHA-approved respirator in accordance with our Safety Data Sheet.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Master Wall Inc.® products and is presented in good faith. Master Wall Inc.® assumes no liability, expressed or implied as to the architecture, engineering, or workmanship of any project. This information may be concurrent with, or superseded by other applicable documents, such as specifications and details. Contact Master Wall Inc.® for the most current product information. ©2022 Master Wall Inc.®

# Master Wall Inc. Building a Culture of Excellence

#### **Health & Safety**

#### WARNING!

Causes eye and skin irritation.
Precautionary Statement
Wash hands thoroughly after handling. Wear
protective gloves/protective clothing/eye
protection/face protection.

#### FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Store locked up. Dispose of contents/container in accordance with Local, State, Federal and Provincial regulation.

Spills: Collect with suitable absorbent material such as cotton rags.

Disposal: Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED
WHEN NOT IN USE. KEEP OUT OF THE REACH OF
CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR
INDUSTRIAL USE ONLY.

Consult the Safety Data Sheet (SDS) in the Products section at masterwall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.



#### **MBB**

Master Wall® Bagged Base Coat (MBB) is a dry polymer acrylic formulated high performance base coat and adhesive used in Master Wall® Systems or over prepared substrates including brick, masonry, concrete and stucco.

#### **FEATURES & BENEFITS**

- Adheres insulation board to approved substrates
- Base coat for Master Wall CIFS®, EIFS and other Systems
- Leveling coat for Cemplaster Fiberstucco and other stucco products
- Excellent water resistance
- · Freeze stable in dry form
- · Convenient, mixes with water
- · Easy clean up with water

Application Temperature: 40°-110°F (5°-43°C)

Working Time: 1 hour

Set Time: Varies with temperature and humidity

Dry Time: 12 hours at room temperature, working and drying time will

vary with temperature and humidity.

#### JOB CONDITIONS

Air and substrate temperature for application of MBB must be  $40^{\circ}F$  ( $5^{\circ}C$ ) or higher and must remain  $40^{\circ}F$  ( $5^{\circ}C$ ) or higher for a minimum of 24 hours. Provide temporary protection to protect the wall system from damage until permanent flashings, caps and sealants are installed. Store materials within prescribed temperature limits and out of direct sunlight. Working and drying times are based upon normal room temperature conditions and will vary with temperature and humidity.

#### **PREPARATION**

The substrate must be approved by Master Wall Inc®., clean, dry, structurally sound and free of efflorescence, oil, grease, form release agents and curing compounds or anything that would affect bond. Painted surfaces are generally unacceptable without evaluation. Reference Technical Bulletins #173 and #187 for additional information.

#### Coverage per bag (sf/sm)\*

Adhesive & Standard Base Coat:

50-60 sf (4.6-536 sm)

Embedding Single-layer of Mesh:

100-125 sf (9-11.5 sm)

Double Layer of Mesh:

30-110 sf (2.5-10 sm)

Notched Trowel Adhesive Application:

56 sf (5.2 sm)

\*All coverage is approximate and depend upon substrate, details and individual application

#### Packaging/Shelf Life/Storage

Packaging: 50lb (22.7kg) bag

Shelf Life: 1 year

Storage: Protect from weather, high

humidity and direct sunlight.

#### **Technical Data**

ASTM C297/E2134 - min 30 psi (208 kPa)

ASTM E96 - 12 perms

MBB PRODUCT DATA

#### APPLICATION PROCEDURE

Mixing - Add 5 to 6 quarts (4.7-5.7L) of potable water to a clean plastic pail. Add the MBB slowly while stirring using a heavy-duty 1/2" (12.7mm) drill at 400 to 500 rpm and a heavy-duty Mixer. Mix thoroughly to a homogenous consistency. Let the mixture stand for 3 to 5 minutes and then stir to a creamy consistency. Small amounts of clean, potable water may be added to obtain a workable consistency. Do not over mix. Excessive stirring may cause faster setting and reduced working time. Do not add accelerators or retarders to the MBB mixture.

#### **APPLICATION**

ADHESIVE APPLICATION – Over gypsum or Rollershield coated substrates, apply the MBB mixture directly to the back of the insulation board using a 3/8" x 3/8" x 3/8" x 3/8" (9.5 x 9.5 x 9.5 mm) or a 3/8" x 1/2" x 1-1/2" (9.5 x 13 x 38 mm) stainless steel notched trowel. With the trowel at a 45-degree angle, cover the entire back of the insulation board with full beads of adhesive. Apply the adhesive so the ribbons run vertically when applied to the wall.

Over non-gypsum substrates where drainage is not required, you may use the above described notched trowel method or the 'ribbon and dab' method. Using a stainless steel plastering trowel, apply a 2" (50.8 mm) wide by 3/8" (9.5 mm) high ribbon of the F&M mixture around the entire perimeter of the insulation board. Place 8 dabs of the F&M mixture 3/8" (9.5 mm) thick by 4" (102 mm) in diameter approximately 8" (204 mm) on center inside the ribbon.

Immediately place the prepared insulation board on the substrate. Make sure that all edges of the insulation board are abutted tightly and that no F&M mixture gets into the board joints. Do not allow the MBB mixture to form a skin prior to placing the insulation board on the substrate. Do not apply the MBB mixture directly onto the substrate.

BASE COAT APPLICATION – Over insulation board, all imperfections in the board must be rasped flush and any gaps in the insulation board must be filled with slivers of insulation. Apply the MBB mixture over the entire surface of the insulation board in a thickness greater than that of the reinforcing fabric being used (approximately 1/16" (1.6 mm) for standard mesh and 3/32" (2.4 mm) for Ultra Mesh). Immediately embed the reinforcing fabric into the wet MBB mixture and smooth from the center to the edge to avoid wrinkles. The reinforcing fabric must be continuous at all corners and lapped or abutted in accordance with Master Wall® specifications. The color of the mesh shall not be visible, but a slight mesh pattern may be visible.

As a leveling coat over approved concrete, masonry, stucco, and other surfaces, apply the MBB mixture over the entire surface a nominal 1/16" (1.6 mm) thick. Where reinforcing mesh is specified, follow application methods for insulation board above.

Hazard: This chemical is not considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

VOC: Less than 50 g/L.

#### **Approved Substrates**

Exterior gypsum sheathing (ASTM C1396, C1177)

Dens Glass Gold®

GlasRoc®

FiberBond®

Gold Bond e2xp®

Securock®

Weather Defense Platinum™

Cement Board (ASTM C1325)

**Durock®** 

PermaBase®

Util-A-Crete®

ProTEC®, ProGUARD®

Concrete

Brick

Masonry

Metal Lath - Adhesive Application

Adheres to Rollershield

Others approved in writing

MBB

#### **CLEAN UP**

Tools and equipment can be cleaned with soapy water while the MBB is still wet.

#### WARNING, THIS PRODUCT CONTAINS SILICA

If sanding or scraping are performed, ventilate work area and/or use a NIOSH/MSHA-approved respirator in accordance with our Safety Data Sheet.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Master Wall Inc.® products and is presented in good faith. Master Wall Inc.® assumes no liability, expressed or implied as to the architecture, engineering, or workmanship of any project. This information may be concurrent with, or superseded by other applicable documents, such as specifications and details. Contact Master Wall Inc.® for the most current product information. ©2022 Master Wall Inc.®

# Master Wall Inc. Building a Culture of Excellence

#### **Health & Safety**

#### WARNING!

Causes eye and skin irritation.
Precautionary Statement
Wash hands thoroughly after handling. Wear
protective gloves/protective clothing/eye
protection/face protection.

PRODUCT DATA

#### FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.

Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

Store locked up. Dispose of contents/container in accordance with Local, State, Federal and Provincial regulation.

Spills: Collect with suitable absorbent material such as cotton rags.

Disposal: Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED
WHEN NOT IN USE. KEEP OUT OF THE REACH OF
CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR
INDUSTRIAL USE ONLY.

Consult the Safety Data Sheet (SDS) in the Products section at masterwall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.

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#### AGGRE-FLEX MESH

Master Wall® Aggre-flex Mesh is a specially woven, glass fiber mesh with AR Coating (Alkali Resistive). Embedded in Master Wall® base coats, Aggre-flex Mesh is the key impact and tensile component in Master Wall® EIFS and wall systems. It can also improve crack resistance in Master Wall® Cemplaster Fiberstucco Systems, traditional stucco or foam shapes.

#### **FEATURES & BENEFITS**

- Detail Mesh super soft, pliable mesh used for backwrapping, special shapes, and detail work.
- Standard Mesh-Standard weight mesh for wall areas and general detailing. Industry leading impact resistance.
- Hi-Tech Mesh-Upgraded heavier weight version of Standard Mesh with good workability.
- Medium Mesh-Extra tough heavy weight mesh. Best for areas of light traffic.
- Strong Mesh-Great high traffic mesh where impacts are a consideration.
- **Ultra Mesh**-Best where abuse is expected. Ultra heavy for high traffic areas.
  - o **Strong Mesh** and **Ultra Mesh** must be used in a two-layer system.
- Corner Roll For highly impact resistant corners. Apply under Standard or higher mesh.

#### MESH WEIGHT AND COVERAGE

Mes	sh Weight	Roll Size	Coverage*
Detail	4.5 oz/sy (113 g/sm)	9.5" x 150' (96.5cm x 45.7m)	119 sf (11 sm)
Standard - 38	4.6 oz/sy (156 g/sm)	38" x 150' (96.5cm x 45.7m)	475 sf (44.1 sm)
Standard - 48	4.6 oz/sy (156 g/sm)	48" x 150' (122 cm x 45.7m)	600 sf (55.7 sm)
Hi-Tech	6.0 oz/sy (202 g/sm)	48" x 150' (122cm x 45.7m)	600sf (55.7sm)
Medium	12.0 oz/sy (313 g/sm)	38" x 75' (96.5cm x 22.8m)	238 sf (22.1 sm)
Strong	15.4 oz/sy (508 g/sm)	38" x 75' (96.5cm x 22.8m)	238 sf (22.1 sm)
Ultra	21.0 oz/sy (675 g/sm)	38" x 75' (96.5cm x 22.8m)	238 sf (22.1 sm)
Corner Roll	9.5 oz/sy (238 g/sm)	9.5" x 150' (96.5cm x 45.7m)	150 If (45.7 m)

PRODUCT TEST STANDARDS

ASTM D76, ASTM D578, ASTM D579, ASTM D1777, ASTM D3659, ASTM D3775, ASTM D3776, ASTM D4029, ASTM D5035, ASTM E2098, ASTM E2486. MIL-Y-1140

Weave: Full Leno

#### Impact ASTM E2486 (Formerly EIMA 101.86)

Standard Mesh	Medium Impact Resistance 50-89 in-lbs (5.7-10.1J)	247/280
Hi Tech Mesh	Medium Impact Resistance 50-89 in-lbs (5.7-10.1J)	140/250
Medium Mesh	Medium Impact Resistance 50-89 in-lbs (5.7-10.1J)	300/500
Medium & Standard	High Impact Resistance 90-150 in-lbs (10.2-17.0J)	300/500
Strong & Standard	Ultra High Impact Resistance 150+ in-lbs (over17.0J)	350/600
Ultra & Standard	Ultra High Impact Resistance 150+ in-lbs (over17.0J)	750/500
Corner Roll		274/274

AGGRE-FLEX MESH PRODUCT DATA

#### APPLICATION PROCEDURE

Job Conditions - Air and substrate temperature for embedment of the Reinforcing Mesh must be 40°F (5°C) or higher and must remain 40°F (5°C) or higher for a minimum of 24 hours. Provide temporary protection at all times until the wall system, including flashings, caps, and sealants, is completed to provide protection from climatic conditions and other potential damage.

Application - All imperfections in the insulation board must be rasped flush and any gaps in the insulation board must be filled with slivers of insulation. Apply the base coat over the entire surface of the insulation board in a thickness greater than that of the Reinforcing Mesh being used, approximately 1/16" (1.6 mm) for Standard Mesh and 3/32" (2.4 mm) for Ultra Mesh. Immediately embed the Aggre-flex Mesh into the wet base coat and smooth from the center to the edge to avoid wrinkles. Lap all meshes except Strong Mesh and Ultra Mesh a minimum of 2-1/2" (63.5 mm) on all sides. The reinforcing fabric must be continuous at all corners and lapped or abutted in accordance to Master Wall specifications. The color of the mesh shall not be visible but a slight mesh pattern may be visible. The overall minimum thickness of the base coat should be a nominal 1/16" (1.6 mm) when dry.

When applying Strong, Ultra or Corner Roll Mesh, tightly abut all edges and let cure for a minimum of 12 hours. Grind any imperfections with the edge of a stainless steel trowel or grinding stone, taking care not to damage the Aggre-flex Mesh, and apply a layer of Standard Mesh, Hi-Tech Mesh, or Medium Mesh as per the directions in the preceding paragraph. To minimize wall variations, the lap of the second mesh layer should not coincide with the abutment of the first layer.

#### **Special Conditions and Recommendations**

Apply wrapping, backwrapping mesh or other approved accessory at all terminations of the insulation board. This includes at the top and bottom of all walls and at all openings.

Aggre-flex Mesh may be wrapped from the face of the insulation board onto a foundation or onto the studs of an opening on barrier wall systems. In all cases, the exposed edges of the insulation board must be wrapped with Aggre-flex Mesh and base coat or an approved accessory trim.



#### **Health & Safety**

#### WARNING!

Causes eye and skin irritation.
Precautionary Statement
Wash hands thoroughly after handling. Wear
protective gloves/protective clothing/eye
protection/face protection.

Consult the Safety Data Sheet (SDS) in the Products section at masterwall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Master Wall Inc.® products and is presented in good faith. Master Wall Inc.® assumes no liability, expressed or implied as to the architecture, engineering, or workmanship of any project. This information may be concurrent with, or superseded by other applicable documents, such as specifications and details. Contact Master Wall Inc.® for the most current product information.



## UltraBond Veneer Mortar Adhesive

UltraBond is a premium, polymer-fortified, adhesive mortar for the installation of thin brick, synthetic and natural stone products, ceramic tile and quarry tile. UltraBond Veneer Mortar Adhesive mixes easily with water to a creamy consistency and is formulated with high initial grab and shear resistance.

#### Coverage per bag

#### **Vertical Applications**

1/4" x 3/8" (6 mm x 9 mm) Notched Trowel: 60–70 Ft<sup>2</sup>, 5.6–6.5 M<sup>2</sup>

1/2" x 1/2" (12 mm x 12 mm) Notched Trowel: 40-45 Ft<sup>2</sup>, 3.7-4.2 M<sup>2</sup>

Adhered Masonry Veneer Application Method: 30–33 Ft<sup>2</sup>, 2.8–3.1 M<sup>2</sup>

Coverage may vary depending upon application technique and surface conditions.

#### Packaging/Shelf Life/Storage

Packaging: 50 lb (22.7 kg) bag

Shelf Life: 2 years

Storage: Protect from moisture and high

humidity.

#### **Technical Data**

Compression (ASTM C270)

24 hours - 500 psi 7 day - 2700 psi 28 day - 3350 psi

Tensile (ANSI A118) Glazed/Mosaic

7 day - 315 psi / 305 psi 28 day - 500 psi / 290 psi

Shear Bond (ANSI A118.15) Glazed/Mosaic

7 day dry - 475 psi / 460 psi 7 day wet - 390 psi / 400 psi 28 day dry - 625 psi / 450 psi

Sag Resistance

(ISO 13007 24.2)

Quarry Tile - 0.0 Large Scale Tile - .485

Full Scale Stone - 0.0

**Hazard**: Considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

VOC: Less than 50 g/L.

#### **Features & Benefits**

- Non-Sag
- Strong adhesion with Thin Brick and synthetic stone products
- · Class leading shear bond strength
- Mixes easily with good open time
- Vapor Permeable resists blistering and allows trapped water vapors to pass
- Freeze stable in dry form

Application Temperature: 40°-110°F (5°-43°C) • Working Time: 1 hr • Dry Time: 12 hrs

at room temperature, working and drying time will vary with temperature and humidity

#### **Surface Preparation & Mixing**

Job Conditions - Air and substrate temperature for application of UltraBond must be 40°F (5°C) or higher and must remain 40°F (5°C) or higher for a minimum of 24 hours. Provide temporary protection to protect the wall system from damage until permanent flashings, caps and sealants are installed. Store materials within prescribed temperature limits and out of direct sunlight. Working and drying times are based upon normal room temperature conditions and will vary with temperature and humidity.

Installer must verify that deflection under all live, dead and impact loads of substrates does not exceed industry standards of L/600 for AMSMV units or stone installations where L=span length. For exterior vertical installations over framed construction, the substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/600 where L=span length.

Preparation - The substrate must be approved by Master Wall Inc®., clean, dry, structurally sound and free of efflorescence, oil, grease, form release agents and curing compounds or anything that would affect bond. Painted surfaces are not acceptable and must be removed.

Mixing - Add 5 to 6 quarts (4.7-5.7 L) of potable water to a clean plastic pail. Add the UltraBond slowly while stirring using a heavy-duty 1/2" (12.7 mm) drill at 400 - 500 rpm and a heavy-duty mixer. Mix thoroughly to a homogeneous but stiff consistency. Let the mixture stand for 5 to 10 minutes and then remix without adding any more water or powder. During use, stir occasionally to keep mix fluffy. DO NOT temper with water. Excessive stirring may cause faster setting and reduced working time. Do not add accelerators or retarders to the UltraBond mixture.



### UltraBond Veneer Mortar Adhesive

#### **Health & Safety**

WARNING!

Causes eye damage and skin burns if not used properly.

#### **Precautionary Statement**

Wear protective gloves/protective clothing/eye protection/face protection. Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.

#### FIRST AID MEASURES

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.

Skin Contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Wash contaminated clothing before reuse. If skin irritation or rash occurs get medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.

Ingestion: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting.

Store locked up. Dispose of contents/container in accordance with Local, State, Federal and Provincial regulation.

**Spills**: Prevent further leakage or spillage if safe to do so. Clean up powdered material with vacuum equipped with HEPA filter.

**Disposal**: Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) in the Products section at masterwall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.

#### **Approved Substrates**

Stucco (Scratch or Brown)
Mortar Parge Coat
Master Wall Base Coats
Durock®
PermaBase®
Util-A-Crete®
ProTEC®, ProGUARD®
Concrete
Brick
Masonry
Metal Lath
Adheres to Rollershield
Others approved in writing

#### **Application Procedure**

Prior to installation, ensure back of veneer units are clean of dust, laitance, loose concrete crumbs and any excess film that could impede bond. Porous and excessively dry substrates such as cement board, masonry or stucco may need to be wetted to avoid excessive absorption, allow to dry to the touch. Verify wetting requirements with the veneer manufacturer.

For adhered stone, thin brick and manufactured stone masonry veneers installations, use a gauging trowel to key a thin coat of UltraBond Veneer Mortar Adhesive to cover entire back of the veneer units. Spread additional mortar onto the back of the skim coated veneer sufficient to completely fill the space between the veneer and the substrate when compressed against the substrate. Press the mortar covered back of the veneer against the substrate at the desired final position. Slide the unit roughly 1 -1.5" (25-38mm) diagonally from the desired final position and back into the desired position while maintaining even pressure. This should be done in such a manner as to squeeze the mortar to fill the entire space between the veneer unit and the substrate, allowing excess mortar to extrude on all sides around the veneer unit. Clean excess extruded mortar with trowel and spread onto the next veneer unit to be installed.

Alternate method for thin brick, tile, calcium silicate unit and stone installations: key UltraBond Veneer Mortar Adhesive into the substrate thoroughly. Then, comb on additional mortar with the notched side, use 1/4" x 3/8" (6 mm x 9 mm),1/2" x 1/2" (12 mm x 12 mm) loop or notch trowel. Back butter all thin brick, veneer units 8" x 8" (200 mm x 200 mm),  $\frac{3}{4}$  (19 mm) loop trowel or larger to provide full bedding of the veneer. Place veneer into the mortar and adjust to desired position. Clean any excess mortar on sides of stone or tile veneer.

Note: Use proper sized notched trowel to ensure full bedding of the stone veneer. Spread only enough mortar for maximum coverage with tile within 15–20 minutes. Trowel notch size determined by contractor, size of veneer and job-site coverage. Adjust as necessary. Check mortar for complete coverage by periodically removing veneer unit and inspecting the transfer onto substrate and back of the stone veneer. The size and weight of the veneer will vary. Due to job site conditions and differences in finish material types; ledger boards, shims, wedges or spacers may be required to maintain finish levels and heights.

Grouting/Pointing (if required) - When required, point installation after a minimum of 24 hours curing time at 70°F (21°C). With an approved premium grout or mortar.

Clean Up—Tools and equipment can be cleaned with soapy water while the UltraBond is still wet.

WARNING, THIS PRODUCT CONTAINS SILICA

If sanding or scraping are performed, ventilate work area and/or use a NIOSH/MSHA-approved respirator in accordance with our Safety Data Sheet.

Product description information and basic uses etc.

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## CIFS® Brick Mortar

Master Wall Inc.® CIFS® Brick Mortar is a polymer modified mortar finish that is used to create realistic, durable, color consistent and water resistant mortar joints in CIFS® Brick applications.

#### Coverage per package

160-200 sf (14.8-18.6 sm)

Coverage may vary depending upon application technique and surface conditions.

#### **Batch Mixing Recommendations**

#### 10# (4.5 kg) Batch

0.6-0.8 qt (.56-.76 L) water 32-40 sf (3-3.7 sm)

#### 20# (9 kg) Batch

1.2-1.6 qt (1.1-1.5 L) water 64-80 sf (6-7.4 sm)

#### 25# (11.3 kg) Batch

1.5-2 qt (1.4-1.9 L) water 80-100 sf (7.5-9.25 sm)

Consistent mixing of batches is necessary for color consistency in the finished product!

#### Packaging/Shelf Life/Storage

Packaging: 50 lb (22.7 kg) bag

Shelf Life: 1 year

Storage: Protect from extreme heat (90°F (32°

C), moisture and direct sunlight.

#### **Technical Data**

Properties: Proprietary dry mix mortar.

**Hazard**: This chemical is considered hazardous according to the OSHA Hazard Communication

Standard 2012 (29 CFR 1910.1200).

VOC: Less than 50 g/L.

#### **Features & Benefits**

- Recreates the look of true mortar
- Polymer modified for durability
- Available in 4 colors
- Interior or exterior

Application Temperature: 40°-110°F (5°-43°C) • Working Time: 1 hr • Dry Time: 12 hrs

at room temperature, working and drying time will vary with temperature and humidity

#### **Surface Preparation**

Timing and weather consistency is extremely important for accurate mortar color cure. Take the time to ensure good weather during application and seek training for the application process. This is a naturally curing product and variations are to be expected as it is in face brick installations.

Apply when air and substrate temperatures are between 40°F (4°C)and 100°F (38°C) within 24 hours of application and 72 hours thereafter. For applications outside this range of temperatures, contact Master Wall Inc.® Technical Services.

Surfaces must be dry and clean of dust and foreign materials, e.g., oil, grease and dirt. Thoroughly brush or vacuum surface and grout joints to insure that loose dust and dirt particles are removed. The surface must be frost-free.

#### CIFS<sup>®</sup> Brick Mortar Colors

**Light Buff CIFS** Brick Mortar

Light Smoke CIFS® Brick Mortar

Mist CIFS® Brick Mortar

**Light Pewter CIFS® Brick Mortar** 



## CIFS® Brick Mortar

#### **Health & Safety**

#### WARNING!

Causes severe skin burns and eye damage. Precautionary Statement

Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

#### FIRST AID MEASURES

General Advice: Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Do not rub affected area. Immediate medical attention is required.

Skin Contact: Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. Immediate medical attention is required.

Inhalation: Remove to fresh air. Get medical attention immediately if symptoms occur. Ingestion: Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting.

**Spills**: Pick up and transfer to properly labeled containers.

**Disposal**: Dispose of in accordance with local, state or federal regulations.

Warning: KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Safety Data Sheet (SDS) in the Products section at mastervall.com for further health and safety information.

#### LIMITED WARRANTY

This product is subject to a written limited material or system warranty. Obtain a warranty from the Tech Support tab of our website. Refer to Specifications for more complete information on proper use and handling of this product.

#### **Application Procedure**

#### Prior to Application

CIFS® Brick Taratex Finish must be firmly set.

Mortar joint area must be clean, dry and free of excess finish materials, efflorescence or other products that will affect bond.

#### Mixing

Mix in small batches using the *same techniques and amount of materials*. A maximum small batch of 25 lb (11.3 kg) CIFS® Brick Mortar is recommended.

Use clean, cool, potable water, clean tools and mixing containers.

- 1. Pour half the amount of water needed into the clean mixing container.
- 2. Add CIFS® Brick Mortar to the liquid and mix to a creamy consistency.
- 3. Add more water as needed, up to the maximum recommended amount.
- 4. If using a mechanical mixer, do not exceed 150 rpm and avoid whipping air into mix which will reduce the strength of the mortar.
- 5. Let stand 10 minutes to give all ingredients time to slake. Remix and use.
- Do not retemper with liquid or powder after this point. Once the CIFS® Brick Mortar has become too stiff to work, it must be discarded and a new batch made.
- Always mix batches consistently with the same amount of material and water. Inconsistent batching will cause color variations.

#### **Application**

- Place the CIFS® Brick Mortar Mixture into a grout bag or mortar gun. Cut opening to the width of the stencil joint size.
- 2. Squeeze into the mortar areas of the stencil taking care to completely fill the opening with a slight crown in the middle.
- 3. Let firm set thumbprint hard, then tool with the brick joint tool.
- 4. Wait approximately 30 minutes and remove any remaining excess with a brick pointing tool at a 90° angle to the surface to remove large pieces and a dry brush for small pieces, using light pressure while the mortar is still soft.
- 5. Protect from weather and adverse conditions for 72 hours before putting into service.

#### **Cautions and Limitations**

- Mixing, application and weather conditions are extremely important during the application to avoid efflorescence and color variations. Mix consistently and apply product corner to corner rather than in a phased application to help avoid color variations. Seek manufacturer assistance.
- Slope all exterior surfaces 1:2 minimum to shed water.
- Application in direct sunlight may affect aesthetics if the CIFS® Brick Mortar dries too quickly. Avoid direct sunlight.
- When cleaning do not use harsh or abrasive cleaners. Wash gently using a soap and water solution followed by a warm water rinse.
- Efflorescence, a white crystalline powder, can naturally occur with any Portland cement product. Use industry accepted cleaning procedure to remove any efflorescence.
- Color variations in the mortar should be expected, While color consistency is manufactured into the dry
  product, field application consistency can lead to varied results and is not guaranteed.

#### Clean Up

Tools and equipment can be cleaned with soapy water while the CIFS® Brick Mortar is still wet.

Information contained in this product data sheet conforms to the standard detail recommendations and specifications for the installation of Master Wall Inc. products and is presented in good faith. Master Wall Inc. assumes no liability, expressed or implied as to the architecture, engineering, or workmanship of any project. This information may be concurrent with, or superseded by other applicable documents, such as specifications and details. Contact Master Wall Inc. for the most current product information. ©2020 Master Wall Inc.



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# Master Wall® Light Masonry (LiMa) Program Limited Warranty

LiMa Assemblies LiMaW105, LiMaW205, LiMaM105, LiMaC105: 5 years LiMa Assemblies LiMaW110, LiMaW210, LiMai310TV, LiMai410CB, LiMai510CB: 10 years LiMa Assemblies LiMaW120, LiMaM120, LiMaM220, LiMaM320, LiMaM420: 20 years LiMa Assemblies LiMaC130, LiMaC230: 30 years

Master Wall Inc.® warrants the properly designed and installed Master Wall Inc.® materials for the term noted above from the date of installation over the listed, approved Light Masonry (LiMa) assemblies. Subject to the conditions and limitations stated below, Master Wall Inc.® warrants that the products listed on this document will be free from manufacturing defects and will not break down or deteriorate under normal usage for term stated above from the date of purchase when installed in accordance with the written specifications of Master Wall Inc.® and industry standard guidelines. For this limited warranty to apply, the applications that comprise the installation must be performed with the products listed in this document for each application (LiMa Assemblies). Please refer to individual product data sheets for specific guidelines.

Substrate deflection under all live, dead and impact loads, including concentrated loads, must not exceed L/600 where L=span length. Applications must not exceed 30 ft (9.1 m) in height or 25,000 ft2 (2,250 m2) in area. Installations must conform to all applicable building codes including the International Building Code (IBC) and International Residential Code (IRC) requirements.

#### **DISCLAIMER**

THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES BASED ON SAMPLES OR ORAL STATEMENTS, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THIS DOCUMENT. IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED.

#### **EXCLUSIONS**

Master Wall Inc. is not responsible for workmanship not in accordance with the instructions of Master Wall Inc. and industry standard guidelines. Cracking due to structural movement, excessive deflection or other failure in the substrate is also not covered. Master Wall Inc. IS NOT LIABLE FOR ANY INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES, INCLUDING LOSSES DUE TO DELAYS, INCURRED BY THE PURCHASER OR ANY OTHER PARTY.

#### NO ASSIGNMENT

This limited warranty is not transferable or assignable.



#### **EXCLUSIVE REMEDY**

The sole and exclusive remedy for a breach of this limited warranty is replacement of only the specific portion of the installation that is proven to be defective\*. Master Wall Inc.® will pay for replacement of its own products and replacement of finishing materials, as well as for labor for the replacement installation, but Master Wall Inc. will not pay more, calculated on a square-foot (square-meter) basis, for the replacement than the original purchase price of the portion being replaced. Master Wall Inc.® will not pay for replacement of any portion of the installation that is not proven to be defective.

In the event that the sole and exclusive remedy described above fails of its essential purpose, the liability of Master Wall Inc.<sup>®</sup> is limited to the monetary value, on a square-foot (square-meter) basis, of the original purchase price of the portion being replaced.

\* NOTE: Efflorescence is a normal condition of Portland cement mortars and is not a defective condition.

This warranty becomes effective only when all bills for the components of the system have been paid.

Except as stated, Master Wall, Inc.®, expressly disclaims any warranty of merchantability or fitness for a particular purpose. The above remedies are to be deemed exclusive.

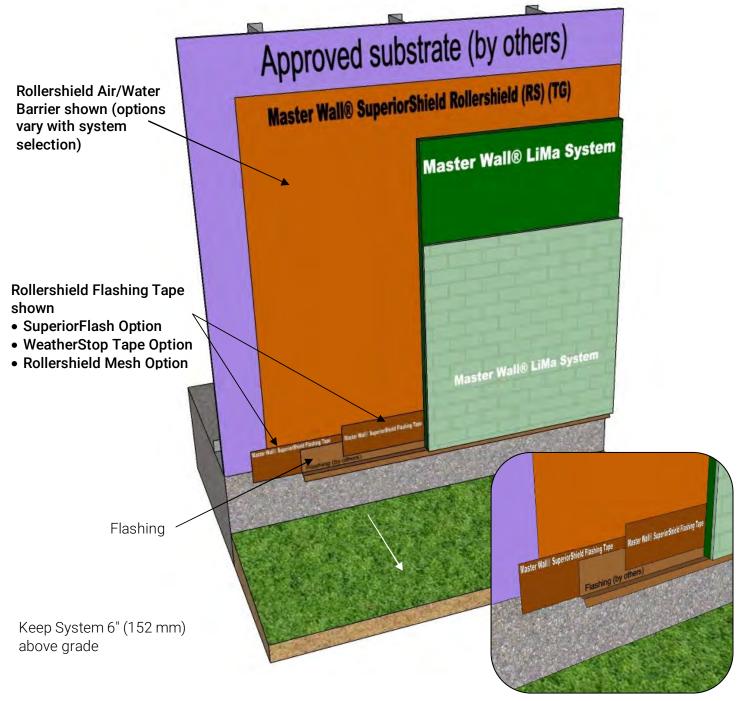
Project:

Applicator:

Warranty Date:

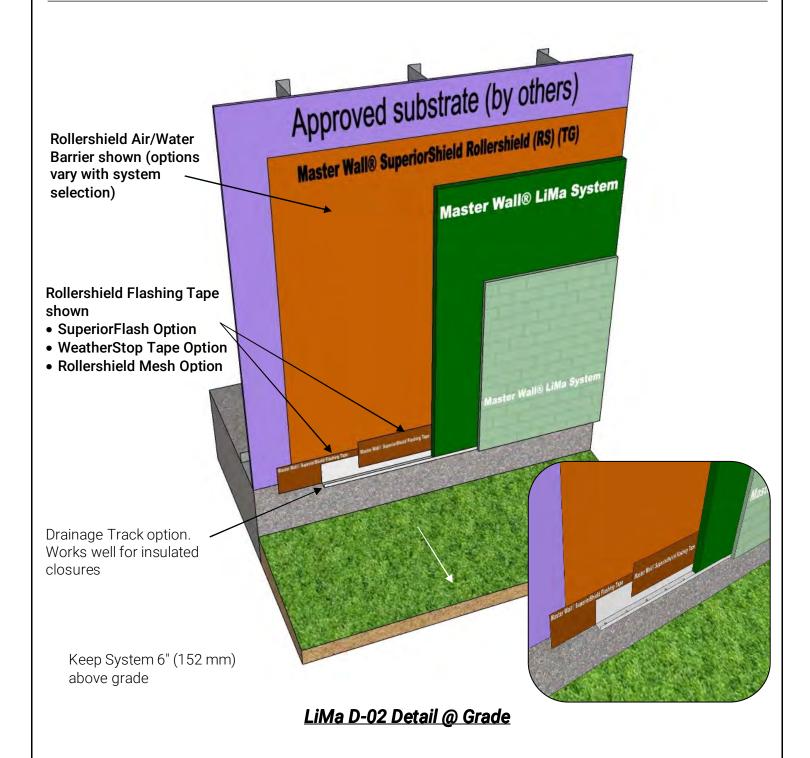
This is not the final warranty. For a valid warranty click on the support tab at masterwall.com and request a warranty. Warranties are not valid until issued.



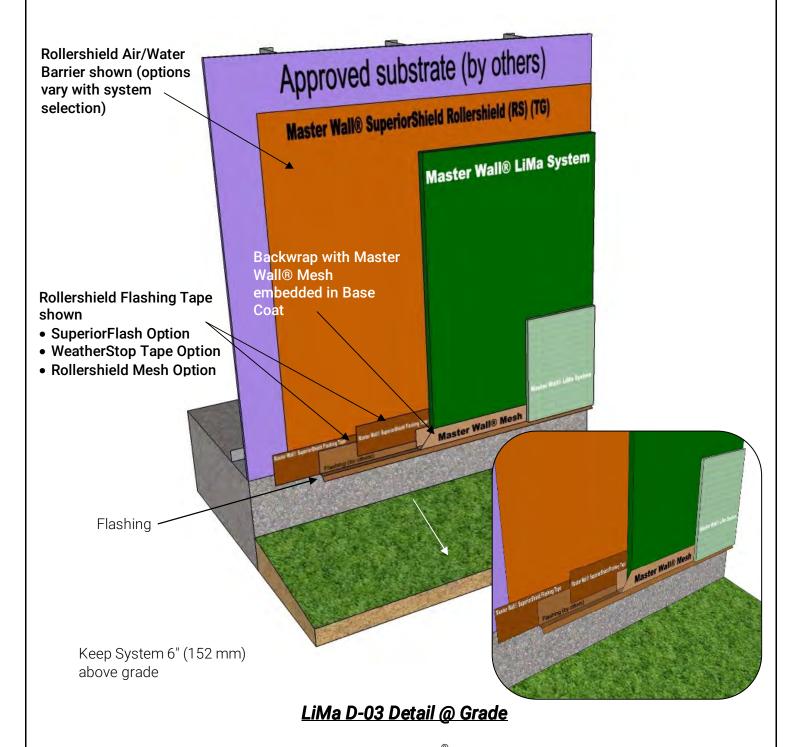


LiMa D-01Detail @ Grade

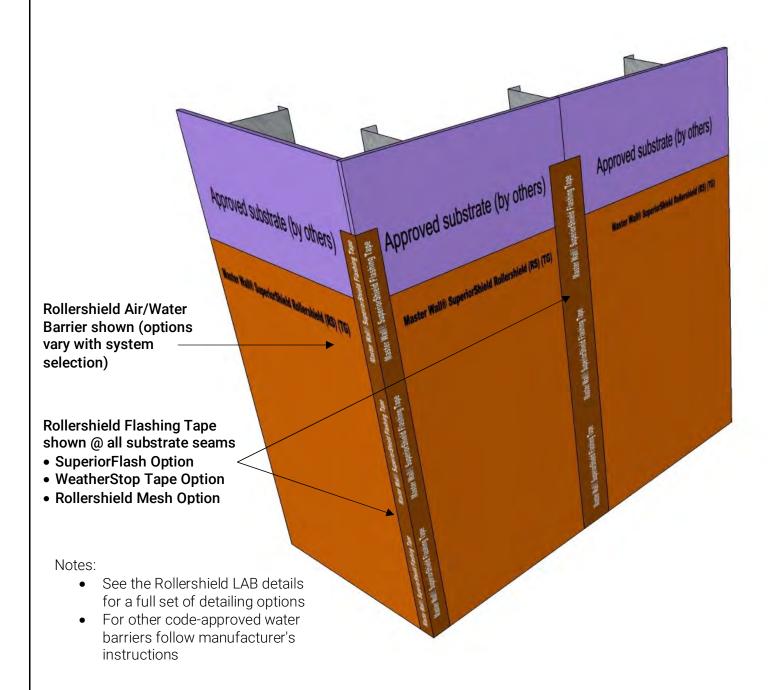












### LiMa D-04 Rollershield LAB Seam Details



Window Head



Diagonal Rollershield Flashing Tape shown

- SuperiorFlash Option
- WeatherStop Tape Option
- Rollershield Mesh Option

#### Notes:

- See the Rollershield LAB details for a full set of detailing options
- For other code-approved water barriers follow manufacturer's instructions

Rollershield Air/Water Barrier shown (options vary with system selection)

Rollershield Flashing Tape shown @ all substrate seams and turned into window opening at least the depth of the window unit

- SuperiorFlash Option
- WeatherStop Tape Option
- Rollershield Mesh Option

Rollershield Flashing Tape shown adhered over flashing

Approved substrate (b) others

Approved substrate (b) others

Master Wall® Superior Shield Rollershield (RS) (RS)

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Flashing Superior Shield Rollershield (RS) (RS)

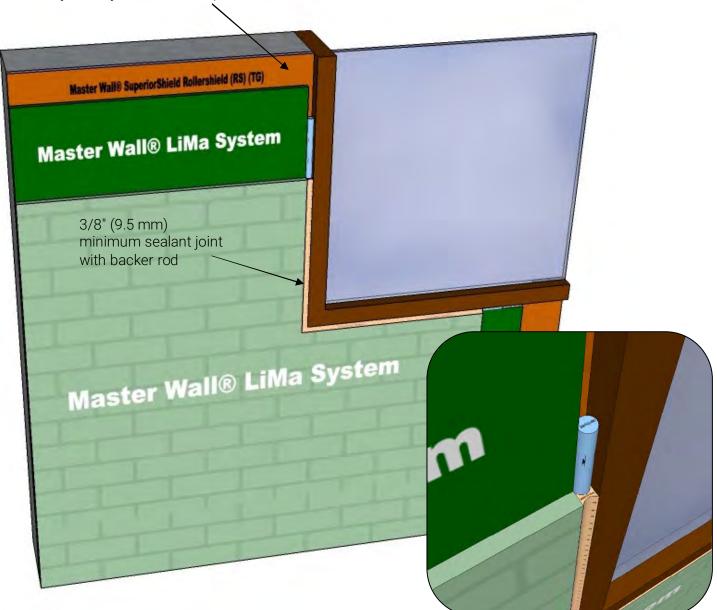
Flashing Superior Shield Rollershield (RS) (RS)

Flanged Window Shown - Install per manufacturer's requirements

# LiMa D-05 Window Opening

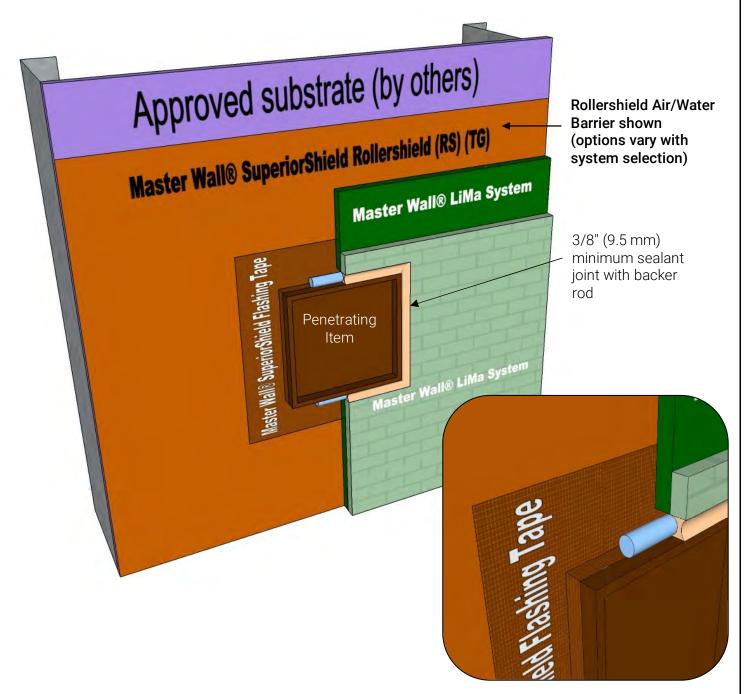


Rollershield Air/Water Barrier shown (options vary with system selection)



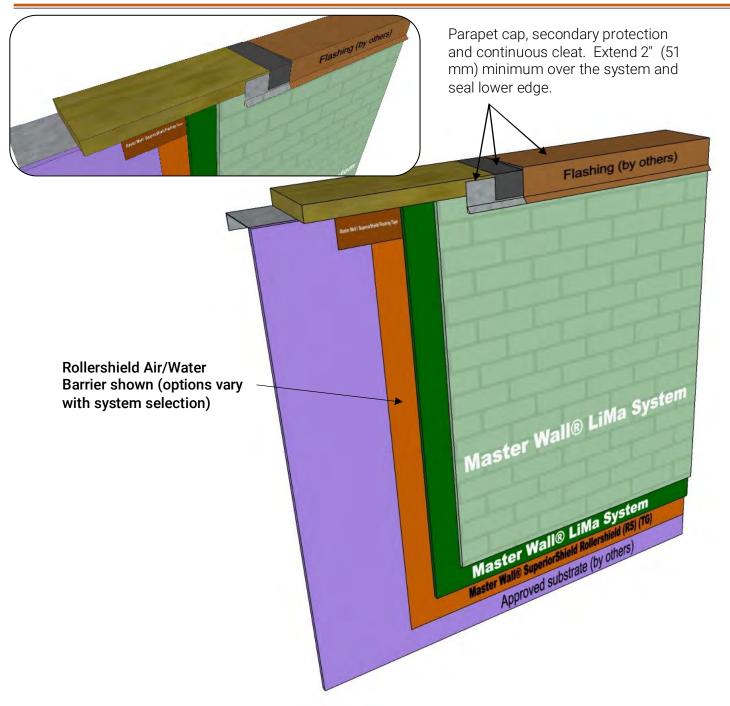
LiMa D-06 LiMa to Window Detail





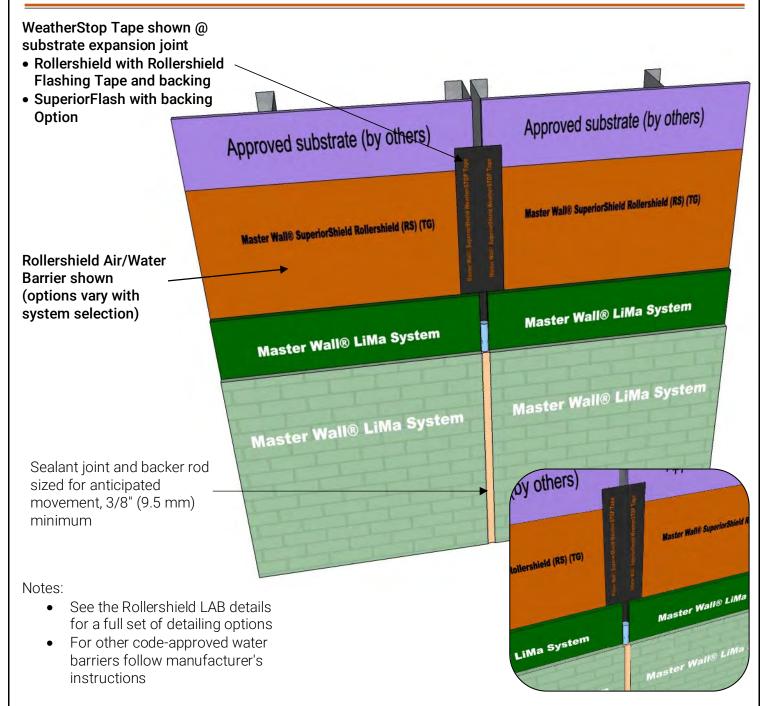
LiMa D-07 LiMa to Wall Penetration Detail





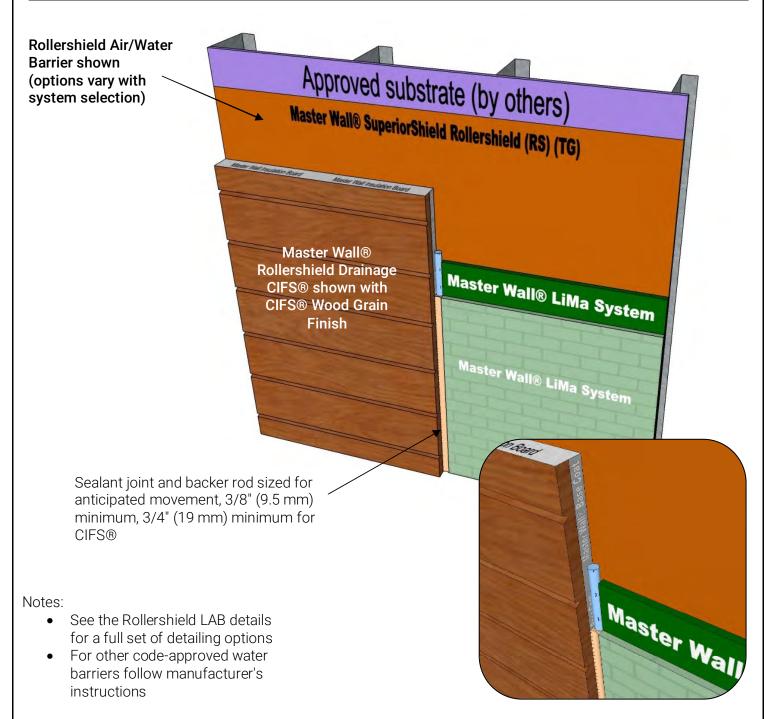
LiMa D-08 Parapet Cap Detail





# LiMa D-09 Expansion Joint Detail





# LiMa D-10 Dissimilar Materials