



Magnum® Board Coatings Section 09 93 63



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Master Wall® Guide Specification MG Magnum® Board Coatings

Part 1 General

1.01 GENERAL

- A. The Master Wall® Magnum® Board Coatings are a decorative coating applied over Magnum® Board substrates.
- B. Drainage cavities may be incorporated into this design.

1.02 SCOPE OF WORK

- A. Provide all materials, labor, and equipment to install the Field Applied and/or Panelized Master Wall® Magnum® Board Coatings.
- B. Related Sections:
 - 1. Concrete 03300
 - 2. Unit Masonry 04200
 - 3. Light Gauge Steel Framing 05400
 - 4. Sheathing 06100
 - 5. Sheet Metal Flashing and Trim 07620
 - 6. Sealants 07900
 - 7. Doors and Windows 08000

1.03 TERMS / DEFINITIONS

- A. Applicator – The contractor that applies the Magnum® Board Coatings.
- B. Base Coat – The material applied to the face of the sheathing and reinforced with one or more layers of mesh to function as the exterior weather barrier.
- C. Base Coat Mixture – A field mixed blend of base coat and Portland cement.
- D. Building Expansion Joint – A joint through the entire building structure designed to accommodate structural movement.
- E. Control Joint – A trim piece designed to control the thermal/structural movement within the Magnum® Board and to minimize cracking.
- F. Designer – The person or firm that is responsible to create the plans and specifications for the entire project.
- G. Expansion Joint – A designed joint in the continuity of a material, assembly, or system, designed to accommodate movement.
- H. Finish Coat – An acrylic based, factory mixed decorative and protective coating that is applied to the base coat.
- I. Reinforcing Mesh – Balanced, open weave, basic glass fiber mesh(es) supplied by Master Wall® Inc.
- J. Mechanical Fastener – Rust resistant fasteners utilized to fasten the sheathing.
- K. Sheathing – A primary material to which the Magnum® Board is attached to or through.
- L. Magnum® Board – Manufactured by Magnum Building Products.
- M. Substrate – The fully attached Stucco Cement Board that Master Wall® materials are applied.



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1.04 QUALITY ASSURANCE

A. Design and Detailing

1. General

- a. Master Wall® Inc.'s current published details, specifications, data sheets, technical bulletins and other literature/information are minimum standards and guidelines that shall be followed when designing and detailing a project with the Master Wall® Magnum® Board Coatings.
- b. Details shall conform to Master Wall® Inc.'s details and shall be consistent with the project requirements.
- c. Structural designs and capacities are limited to and the responsibility of the sheathing/substrate board manufacturer.
- d. Sheathing is required for conditioned northern climates and where necessary for structural concerns in all climates. Non-conditioned northern climates (above the 4000 heating degree day line) and southern climates may not require sheathing. Designer to determine the necessity and use of the sheathing.
- e. Cracking due to dimensional stress at board joints may appear in the finished exterior surface.
- f. Planar irregularities in framing may be more visible than with other applications.
- g. Cement board manufacturer should be consulted for structural requirements.
- h. A secondary weather-resistive barrier is required under the Magnum® Board.
- i. Depending upon framing and climate, some read-through of framing and/or fasteners may occur.
- j. Applications are limited to residential and low-rise commercial installations.
- k. Master Wall® Inc. must approve deviations from the standard published details in writing.
- l. The architect, engineer or the designer of the project should determine where the dew point would occur in relationship to the wall assembly and the project location during summer and winter conditions.
- m. Proper fastener spacing of the approved sheathing shall be strictly adhered to. Reference sheathing manufacturer and local code recommendations for proper fastener spacing.
- n. When the outside temperatures differ considerably from the building's interior temperature, airborne dirt can accumulate on colder regions of walls causing "shadowing" or "spotting", particularly over fasteners and framing. This is not considered a failure of the system or the Master Wall® materials.
- o. The minimum slope of inclined surfaces shall not be less than 6" in 12" with a maximum length of 12" unless approved in writing by Master Wall® Inc. Inclined surfaces which are or could be defined as roofs by the building codes or application are not approved by Master Wall® Inc.
- p. The Magnum® Board Coatings shall not be used on parapet caps.
- q. It is the responsibility of the architect and the purchaser to determine if a product is suitable for their intended use. The architect or designer of the project shall be responsible for all decisions pertaining to the design, details, structural capability, attachment details, shop drawings and the like. Master Wall® Inc. has prepared specifications, details and data sheets to assist as guidelines for the use and installation of the products. Master Wall® Inc. is not responsible for the design, details, structural capability, attachment details and shop drawings whether it is based on Master Wall® Inc.'s information or not.

2. Weather Resistive Barrier

- a. Code approved weather resistive barrier shall be installed over framing on all exterior walls before application of the Magnum® Board begins.
- b. Do not use a vapor barrier (i.e. plastic sheet) on the exterior wall behind the exterior sheathing.
- c. Weather resistive barrier shall be installed horizontally with upper layers overlapping lower layers a minimum of 2" (51 mm). Vertical joints shall overlap a minimum of 6" (152 mm).
- d. Wrap weather resistive barrier into rough openings at windows, doors, mechanical equipment, and any other openings through the system. Reference Master Wall® Inc.'s details.
- e. Lap weather resistive barrier over attachment flange of drainage track a minimum of 2" (51 mm).
- f. Alternatively, Master Wall® *Rollershield* may be used as the water barrier over approved substrates.



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3. Acceptable drainage mat materials for Magnum® Board Coatings shall be:
 - a. Colbond® (Enka®) drainage mats as defined in Master Wall® Technical Bulletin #126.
 - b. Benjamin Obdyke® Homeslicker® drainage mat.
Install drainage mat materials in accordance with manufacturer's details and/or accepted industry practices.
4. Sheathing & Stucco Cement Board
 - a. The maximum deflection under full flexural design loads of the substrate system shall not exceed L/360.
 - b. Acceptable sheathings for the Magnum® Board Coatings shall be designed for their intended use by the design professional.
 - c. Since the surface of the sheathing and Magnum® Board cannot be rasped smooth, the flatness and finished appearance of the Magnum® Board Coatings application will depend on the structural members that support the sheathing.
 - d. The project architect or engineer shall engineer the framing, sheathing and Magnum® Board with regard to the required structural performance.
5. Expansion Joints
 - a. Expansion joints in the system are required at building expansion joints, at prefabricated panel joints, where substrates change, at floor lines in wood framed construction, and where structural movement is anticipated. Reference construction documents for specific locations.
 - b. Double studs may be required to accommodate expansion joints or where it is needed to provide a fastening base for sheathing and Magnum® Board joints.
6. Control Joints
 - a. Control joints are required and located by the designer in the Magnum® Board at the following locations: (Reference construction documents for specific locations).
 - 1) Shall not exceed 20 lineal feet in any direction.
 - 2) 160 square feet equals maximum overall area.
 - 3) One dimension shall not exceed 2 ½ times the other dimension.
 - 4) At all dissimilar substrate transitions.
 - b. Double studs may be required to accommodate control joints or where it is needed to provide a fastening base for sheathing board joints.
7. Sealants
 - a. Sealants and backer rod, as required at expansion joints and dissimilar substrates, shall provide a complete watertight system.
 - b. The sealants in a Magnum® Board Coatings expansion joint, or any sealant joint that anticipates significant movement, shall be bonded to the casing bead, Magnum® Board or the reinforced base coat, not the finish coat. The color of the mesh shall not be visible and the texture of the mesh shall not be exposed within base coat at these locations.
8. Flashings
 - a. Roof
 - 1) Crickets and step flashing shall be properly installed around chimneys.
 - 2) Flashing shall be installed at rooflines in a manner to prevent any intrusion of water behind the weather barrier. This shall include the use of roof kick-out flashing at roof terminations.
 - b. Openings
 - 1) Heads, jambs, and sills of all rough openings must be wrapped with the weather resistive barrier prior to installation of windows, doors, or mechanical equipment.
 - 2) Local building codes may require use of self-sealing flashing tape on the sills.
 - 3) Drainage track and metal flashing shall be installed at heads of openings.
 - 4) Continuous metal flashing shall be installed at heads of ganged windows.
 - c. Decks
 - 1) The system must be terminated at least 2" (51 mm) above poured decks, patios, sidewalks, etc.
 - 2) Wooden decks must be flashed before system is installed.



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9. Penetrations

- a. All penetrations through the system such as hose bibs, dryer vents, lighting fixtures, air-conditioning hoses, etc. must be properly sealed to insure the integrity of the system.

B. Qualifications

1. The Coatings Manufacturer shall have manufactured similar products and formulations for at least 30 years.
2. The Applicator shall be knowledgeable in the proper installation of the Magnum® Board Coatings.
3. The Applicator shall have demonstrated the ability to install the system on projects of similar size and complexity.
4. The Applicator shall provide the proper equipment, manpower and supervision on the job site to install the system in compliance with project plans and specifications.
5. The sealant contractor shall be experienced in the installation of high performance industrial and commercial sealants.
6. Prior to the installation of the Master Wall® Magnum® Board Coatings, erect sample wall mock-up using materials and joint details required for final work. Provide special features as directed for sealant and contiguous work. Build mock-up at the site where directed of full thickness, indicating the proposed color, texture, and workmanship to be expected in the completed work. Obtain architect's acceptance of the mock-up in regard to aesthetic quality before start of work. Retain mock-up during construction as a standard for judging completed work. Do not alter, move, or destroy mock-up until work is completed, and until final acceptance of the project by architect.

1.05 SUBMITTALS

- A. The Applicator shall submit a list of completed projects of like size and complexity.
- B. The Applicator shall submit a certificate of training indicating that they have been given instructions on the proper installation of the Magnum® Board Coatings.
- C. The Applicator shall submit Magnum® Board Coatings Manufacturer's current literature, brochures, specifications, and details.
- D. The Applicator shall submit sufficient samples of each finish texture and color selected. The samples shall be prepared with the same tools and techniques required for the actual project. Color and texture should be approved based on the job site mock-up samples.
- E. The Applicator shall provide any shop drawings that may be applicable to the project for approval by the project architect.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver all materials in original unopened packages with labels intact. Verify all quantities, colors, and textures against bill of lading.
- B. Store all materials protected from direct exposure to weather conditions and at temperatures not less than 40° F (5° C) or greater than 110° F (43° C).
- C. Safety data sheets (SDS) shall be supplied for the components of the Magnum® Board Coatings and be available at the job site.

1.07 JOB CONDITIONS

- A. Ambient air temperatures shall be 40° F (5° C) or greater and rising at the time of installation of the Master Wall® Inc. products and shall remain at 40° F (5° C) or greater for at least 24 hours after application.
- B. Provide supplemental heat and protection as required when the temperature and conditions are not in accordance with installation requirements. Sufficient ventilation and time shall be provided to ensure that materials have sufficiently dried prior to removing supplemental heat.
- C. Adequate protection shall be provided to prevent weather conditions (humidity, temperature, and precipitation) from having an effect on the curing or drying time of Master Wall® Inc. materials.
- D. Adjacent materials and the Magnum® Board Coatings shall be protected during installation and while curing from weather and shall be protected from site damage.
- E. Coordinate installation of the Master Wall® Magnum® Board Coatings with related work specified in other sections to ensure that the wall assembly is protected to prevent water from getting behind the weather barrier. The cap flashing shall be installed as soon as possible after the finish coat has been applied. When this is not possible, temporary protection shall be provided immediately in this area.
- F. All sealants shall be installed in a timely manner. Protect open joints from water intrusion during construction with backer rod, or temporary covering, until permanently sealed.



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G. Sufficient manpower and equipment shall be employed to ensure a continuous operation, free of cold joints, scaffolding lines, texture variations, etc.

1.08 REPAIR AND MAINTENANCE

A. Refer to Master Wall® Inc. specific repair and maintenance procedures.

B. Sealants and flashings shall be inspected annually to verify that the products are not allowing water intrusion behind the weather barrier. If sealant and/or flashings are allowing water intrusion behind the weather barrier, repairs should be made immediately.

1.09 LIMITED MATERIALS WARRANTY

A. A Limited Materials Warranty shall be issued upon the receipt of a properly completed warranty request form.

PART 2 PRODUCTS

2.01 GENERAL

A. All components of the Master Wall® Magnum® Board Coatings shall be obtained from Master Wall® Inc. or its authorized distributors. No substitutions of, or additions of, other materials shall be submitted without prior written permission from Master Wall® Inc. Substitutions or additions will void the warranty.

2.02 MATERIALS

A. Weather Resistive Barrier (by others)

1. The weather resistive barrier shall comply with local building code requirements. Shall be a minimum 15 # felt or a product recognized by the local jurisdictional building authority as a weather resistive barrier equivalent.

B. Drainage Track

1. Drainage track properly sized to the Magnum® Board and manufactured by Vinyl Corp., Plastic Components, or approved equal shall be used, if needed, in accordance with Master Wall® Inc. details.

C. Casing Bead

1. Casing bead properly sized to the Stucco Cement Board and manufactured by Vinyl Corp., Plastic Components, or approved equal shall be used, if needed, in accordance with Master Wall® Inc. details.

D. Mechanical Fasteners

1. A rust resistant fastener approved by the Magnum Building Products shall be used to properly fasten the sheathing. The appropriate fastener shall be used to meet the requirements of the specific project, local building code and the anticipated wind loads.

E. Sheathing & Magnum® Board

1. Sheathing: Applied over framing and may be designed to satisfy structural requirements or fire-resistive construction. Exterior gypsum sheathing (ASTM C-79, Dens Glass Gold, Exposure 1 or exterior plywood (grade C-D or better), Exposure 1 Oriented Strand Board (OSB).
2. Magnum® Board: Magnesium Oxide panels manufactured by Magnum Building Products available in 6 mm (1/4") to 20 mm thickness.

F. Reinforcing Mesh

1. Cement Board Mesh – Lightweight joint reinforcing mesh.
2. Standard Mesh – nominal 4.5 oz./sq. yd. open weave glass fiber fabric, treated for alkaline resistance and compatibility with Master Wall® Base Coats, and conforming to ASTM D-76, D-579, D-5035, and MIL-Y-1140.

G. Base Coats

1. F&M Plus: An acrylic-based product mixed one-to-one by weight with Portland cement designed for use with reinforcing mesh as the base coating over the approved sheathing board. (Because Magnum® Board cannot be rasped to a level surface, F & M Plus is recommended for use as the base coat.)
2. Foam & Mesh (F&M) Adhesive: An acrylic-based product mixed one-to-one by weight with Portland cement designed for use with reinforcing mesh as the base coating over the Magnum® Board.
3. Bagged Base Coat (MBB) or MBB Plus: A polymer based cementitious product mixed with 5 to 6 quarts of water for use as a base coating over the Magnum® Board.



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H. Water Resistant Base Coat

1. Guardian – An acrylic-based product mixed one-to-one by weight with Portland cement for use as a base coat with reinforcing mesh over Magnum® Board. (This product should be used as designated on the construction drawings where additional resistance to moisture is needed, i.e. sloped surfaces.)

I. Primer – Especially useful under dark colors

1. Primecoat Primer - Acrylic-based tintable primer
2. Sanded Primecoat Primer - Acrylic-based tintable primer with sand

J. Superior Finishes: Master Wall Inc.® Superior Finishes are acrylic-based wall coatings available in a variety of colors and textures. The following textures are available:

1. Perfect2.0 - riled texture
2. Fine Sand 1.0 – sand type texture
3. Medium Sand 1.5 – coarse sand texture
4. Versatex 0.5 – Fine texture used to create numerous finishes

K. Finish Enhancements

1. Silicone Coat - Factory added silicone enhancement for better water resistance and to keep buildings cleaner.
2. Excel Mildew Enhancement - Factory added mildew booster exceeding ASTM D3273 requirements.
3. Elastomeric Plus - Increases flexibility and bridges minor hairline cracks.
4. DuroTone Pigments

L. Specialty Finishes

1. Aggrelime – Limestone Look Finish
2. Aggre-stone – Rough Granite Look
3. Brick CIFS™ Realistic Brick
4. Brick Stencil
5. LaCantera – Beautiful Cantera Stone Look
6. Lumia – Granite with Sparkling Mica
7. Marbleflex – Brilliant Plaster Finish
8. Metallic Cote – Metallic Look Finish Coating
9. Metal-Tex - Integrally Colored Metallic Look Textured Finish
10. Savannah – Interior/Exterior Venetian Plaster Type Finish
11. Superior Stone – Smooth Granite Look
12. Taratex – Earthen look Plaster
13. Travertine – Recreates the look of Travertine Limestone

M. Accents & Coatings

1. Roller-flex architectural coating
2. Elasto-flex elastomeric architectural coating
3. Clearshield clear protective coating
4. Vintique antiquing accent

N. Special Shapes: Moldings, cornices, quoins, etc. manufactured by others or formed out of Aggre-flex Insulation Board. All shapes must be reinforced with Base Coat and Reinforcing Mesh.

O. Water: Shall be clear, clean and potable without any foreign matter in the solution that may affect the color and setting qualities of the cement, base or finish coat.

P. Cement: Type I or I-II Portland cement meeting ASTM C-150.

Q. Sealants Systems:

1. Sealants: Reference sealant section (07920) and manufacturer for approved sealants and installation methods.



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PART 3 EXECUTION

3.01 EXAMINATION

- A. Prior to installation of the Magnum® Board Coatings, the contractor shall verify that the substrate and water barrier:
 - 1. Is of a type listed in this specification.
 - 2. Is installed to shed water in accordance with this specification.
 - 3. Is flat within 6.4 mm (1/4 in) in a 3 m (10 ft) radius.
 - 4. Is sound, dry, connections are tight, has no surface voids, projections or other conditions that may interfere with the Magnum® Board Coatings installation or performance.
- B. Prior to the installation of the Magnum® Board Coatings, the architect or general contractor shall insure that all needed flashings and other waterproofing details have been completed, if such completion is required prior to the coatings application. Additionally, the Contractor shall ensure that:
 - 1. Metal roof flashing has been installed in accordance with Asphalt Roofing Manufacturers Association (ARMA) Standards.
 - 2. Openings are flashed in accordance with the Magnum® Board Coatings Installation Details or as otherwise necessary to prevent water penetration.
 - 3. Chimneys, Balconies, and Decks have been properly flashed.
 - 4. Windows, Doors, etc. are installed and flashed per manufacturer's requirements and the Magnum® Board Coatings Installation Details.
- C. Prior to the installation of the Magnum® Board Coatings, the contractor shall notify the general contractor, and/or architect, and/or owner of all discrepancies.

3.02 PREPARATION

- A. The Stucco Cement Board Coating materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.
- B. Protect adjoining work and property during the Magnum® Board Coating installation.
- C. The substrate shall be prepared as to be free of foreign materials, such as, oil, dust, dirt, form release agents, efflorescence, paint, wax, water repellents, moisture, frost and any other condition that inhibit adhesion.

3.03 INSTALLATION

- A. The system shall be installed in accordance with the current Master Wall® Inc. Magnum® Board Coatings Application Instructions.
- B. The overall minimum base coat thickness shall be sufficient to fully embed the mesh.
- C. Sealant shall not be applied directly to textured finishes.

3.04 FIELD QUALITY CONTROL

- A. The contractor shall be responsible for the proper application of the Magnum® Board Coating materials.
- B. Master Wall® Inc. assumes no responsibility for on-site inspections or application of its products.
- C. If required, the contractor shall certify in writing the quality of work performed relative to the substrate system, details, installation procedures, workmanship and as to the specific products used.
- D. If required, the EPS supplier shall certify in writing that the EPS meets Master Wall® Inc.'s specifications.
- E. If required, the sealant contractor shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Master Wall® Inc.'s recommendations.



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3.05 CLEANING

- A. All excess Magnum® Board Coating materials shall be removed from the job site by the contractor in accordance with contract provisions and as required by applicable law.
- B. All surrounding areas, where the Magnum® Board Coatings has been installed, shall be left free of debris and foreign substances resulting from the contractor's work.

3.06 PROTECTION

- A. The Magnum® Board Coatings shall be protected from inclement weather and other sources of damage until dry and permanent protection in the form of flashings, sealants, etc. are installed.

Disclaimer

This Specification is published for general informational purposes only and is not intended to imply that these are the only materials, procedures, or methods, which are available or suitable. Materials, procedures, or methods may vary according to the particular circumstances, local building code requirements, design conditions, or statutory and regulatory requirements. While the information in this specification is believed to be accurate and reliable, it is presented without guarantee or responsibility on the part of Master Wall Inc.®