

# CLASSIC CEMENT PLASTER SYSTEM II™



Fiberglass Reinforced Cement Plaster System

## Classic Cement Plaster System II Specifications

**DRYVIT SYSTEMS, INC.**  
**ARCHITECTURAL SPECIFICATION**  
**SECTION 09200**  
**CLASSIC CEMENT PLASTER SYSTEM II™**

**PART I - GENERAL****1.01 SUMMARY:**

This document is intended to be used in preparing specifications for projects utilizing Classic Cement Plaster System II by Dryvit. For complete product description and usage refer to:

- A. Dryvit Classic Cement Plaster System II Data Sheet, DS469.
- B. Dryvit Classic Cement Plaster System II Installation Details, DS182.

**1.02 RELATED SECTIONS**

- A. Section 1200 – Project Meetings
- B. Section 03300 – Concrete
- C. Section 04220 – Unit Masonry
- D. Section 05410 – Load-Bearing Steel Studs
- E. Section 06110 – Wood Framing
- F. Section 07600 – Flashing and Sheet Metal
- G. Section 07900 – Joint Sealants
- H. Section 09110 – Non Load-Bearing Steel Studs
- I. Section 09250 – Gypsum Sheathing Board

**1.03 REFERENCES**

- A. National Building Code Canada
- B. Uniform Building Code (UBC)
- C. National Building Code (NBC)
- D. Standard Building Code (SBC)
- E. International Building Codes (IBC and IRC)
- F. American Concrete Institute ACI 524R: Guide to Portland Cement Plastering
- G. Portland Cement Association: Portland Cement Plaster (Stucco) Manual
- H. ASTM A526: Steel Sheet, Hot-Dip Galvanized, Commercial Quality
- I. ASTM C847: Metal Lath
- J. ASTM C926: Application of Portland Cement-Based Plaster
- K. ASTM C1063: Installation of Lathing and Furring for Portland Cement Plaster
- L. ASTM D1784: Rigid Polyvinyl Chloride (PVC) Compounds

**1.04 SUBMITTALS**

- A. Submittal requirements by the contractor are to be indicated in the construction documents as required, including:
  - 1. Product literature, samples or mock up.
  - 2. Finish sample indicating color and texture for approval by architect/owner.

**1.05 DESCRIPTION**

- A. Classic Cement Plaster System II consists of a fiberglass reinforced, cement plaster base (Classic Cement Plaster Base™) utilizing alkali resistant fibers and proprietary cementitious admixtures to provide a high impact exterior wall covering for use over combustible or non-combustible construction types. Classic Cement Plaster Base is applied to galvanized expanded metal, welded wire, or woven wire lath, installed over a weather-resistive barrier, over properly sheathed wood or metal framed walls, CMU and concrete substrates. The Classic Cement Plaster Base is finished with a Dryvit acrylic primer and Dryvit acrylic finish.

- 1. Design Requirements:
  - a. Substrates shall comply with local code requirements and practices for use under cement plaster including:
    - 1) Exterior Grade Gypsum sheathing meeting ASTM C79.
    - 2) Silicone treated gypsum core sheathing surfaced with inorganic fiberglass mats meeting ASTM C1177.
  - 3) APA Exterior or Exposure 1 rated Plywood, Grade C-D or better, nominal 13 mm (1/2 in) thick, minimum ply.

- 4) APA Exposure 1 rated Oriented Strand Board (OSB), nominal 13 mm (1/2") thick.
- 5) Concrete and Masonry.
- b. Plywood and OSB sheathing shall be gapped 3 mm (1/8 in) on all sides as recommended by the APA The Engineered Wood Association.
- c. The roofing materials shall be loaded onto the roof and interior wallboard stocked in the building prior to the installation of the Classic Cement Plaster System II.
- d. Deflection of substrate systems shall not exceed L/360.
- e. The slope of inclined surfaces shall not be less than 6:12.
- f. The length of inclined surfaces shall not exceed 305 mm (12 in).
- g. Slopes on windowsills projecting 102 mm (4 in) or less, shall not be less than 3:12.
- h. Expansion joints:
  - 1) Design and location of expansion joints shall be determined by the project design professional and indicated on the contract documents. As a minimum, expansion joints in the Classic Cement Plaster System II are required at the following locations:
    - a) Where expansion joints occur in the substrate system.
    - b) Where building expansion joints occur.
    - c) At floor lines in wood frame construction.

- d) Where the Classic Cement Plaster System II abuts dissimilar materials.
  - e) Where the substrate changes.
  - f) Where significant structural movement occurs such as changes in roofline, building shape or structural system.
  - i. Control joints:
    - 1) Design and location of control joints shall be determined by the design professional in general accordance with ASTM C1063 and indicated on the contract drawings. As a minimum, control joints shall be located at the following locations:
      - a) Corners of openings
      - b) Such that monolithic wall areas do not exceed 13.4 m<sup>2</sup> (144 ft<sup>2</sup>)
      - c) Length to width ratios of wall areas shall not exceed 2.5:1.
  - j. Sealants
    - 1) Use and location of sealants is the responsibility of the project designer and shall be indicated on the contract documents.
    - 2) Refer to Section 7900
    - 3) Refer to Dryvit publication DS153 for a list of sealants that have been tested for compatibility with Dryvit products.
  - k. Vapor Retarders
    - 1) Use and location of vapor retarders within a wall assembly is the responsibility of the project designer and shall comply with local building code requirements. Type and location shall be noted on the contract documents. Vapor retarders may be inappropriate in certain areas and can result in condensation within the wall assembly when incorrectly used. Refer to Dryvit publication DS159 for additional information.
  - l. Flashing shall be provided at all roof-wall intersections, windows, doors, chimneys, decks, balconies, and other areas as necessary to prevent water penetration behind the Classic Cement Plaster System II.
  - 2. Performance Requirements:
    - As a minimum, the Dryvit Classic Cement Plaster System II products shall be tested as follows:
      - a. ASTM C109: Compressive Strength: 13.9 Mpa (2020 psi)
      - b. ASTM C348: Flexural Strength: 3.0 Mpa (570 psi)
      - c. ASTM C190: Tensile Strength: 1.2 Mpa (180 psi)
      - d. ICBO Procedure: Freeze/Thaw cycling: No cracking, checking or delamination
      - e. ASTM E514: Water Vapor Permeability: 415 ng/(Pa• s• m<sup>2</sup>) (7.2 Perms)
      - f. ASTM E72: Transverse Load Strength: Wood Studs – 468.7 kg/m<sup>2</sup> (96 psf) Metal Studs – 673.8 kg/m<sup>2</sup> (138 psf)
      - g. ASTM E119: Fire Resistive Wall Assembly
      - h. MIL STD 810B: Mildew Fungus Resistance – Passed
      - i. ASTM B117: Salt Spray Resistance – 300 hrs, no deleterious effects.
      - j. ASTM D968: Abrasion Resistance – 500 L (132 gal), no deleterious effects.
  - k. ASTM G53: Accelerated Weathering – 2000 hrs, Passed.
- 1.06 QUALITY ASSURANCE**
- A. Qualifications:**
1. Manufacturer: Shall be Dryvit Systems, Inc. or approved suppliers. All materials shall be obtained from Dryvit Systems, Inc. or its authorized distributors.
    - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2000 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
  2. Plastering Contractor:
    - a. Shall be knowledgeable in the proper installation of Classic Cement Plaster System II.
    - b. Shall have qualified and properly trained people to perform work.
    - c. Shall be licensed, bonded and insured.
    - d. Shall have experience in application of cement plaster systems on projects of comparable scope.
  3. Third Party Inspection:
    - a. Independent third party inspection is recommended to verify installation according to code and contract documents. It is recommended that as a minimum, inspection items include installation of the secondary barrier, flashings, metal lath and accessories, Classic Cement Plaster System II materials, and sealants. The intent is to verify that the installation has been performed in accordance with code requirements,

contract requirements and this specification.

**B. Mock-Up**

1. The contractor shall, before the project commences, provide the owner/architect with a mock-up for approval.
2. The mock-up shall be of suitable size as required to accurately represent each color and texture to be utilized on the project.
3. The mock-up shall be prepared with the same products, tools, equipment and techniques required for the actual applications. The finish used shall be from the same batch as that being used for the project.
4. The approved mock-up shall be available and maintained at the job site.

**1.07 DELIVERY, STORAGE AND HANDLING**

- A. All Classic Cement Plaster System II materials shall be delivered to the job site in the original, unopened packages with labels intact. Questionable materials shall not be used.
- B. Minimum storage temperature shall be 7 °C (45 °F) for Color Prime-W™, 10 °C (50 °F) for Ameristone, and 4 °C (40 °F) for other products.
- C. All materials shall be stored above ground, dry and protected.
- D. Protect all products from weather and direct sunlight.

**1.08 PROJECT CONDITIONS**

- A. Application of materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are dry.
- B. Dryvit Classic Cement Plaster Base shall not be applied when wall or ambient temperatures are below 4 °C (40 °F).
- C. Application of Dryvit Color Prime-W and Dryvit Finishes shall be at a minimum ambient temperature of 4 °C (40 °F) 7 °C (45 °F) or 10 °C (50 °F), depending on specific products

used. These temperatures shall be maintained for a minimum of 24 hours (48 hours for Ameristone) thereafter, or until completely dry. Refer to the product data sheet(s) for the specific product specified. Classic Cement Plaster Base shall be completely dry and properly cured prior to coating application.

- D. If necessary, tenting, heating and ventilation may be utilized to maintain required conditions. Heaters shall be vented to the outside.
- E. Protect the Classic Cement Plaster System II materials from uneven and excessive evaporation in warm windy weather. Always work the shady side of the wall. Refer to section 3.03.D for Classic Cement Plaster Base curing requirements.

**1.09 SEQUENCING AND SCHEDULING**

- A. Installation of the Classic Cement Plaster System II shall be coordinated with other construction trades.

**1.10 WARRANTY**

- A. Dryvit Systems, Inc. shall provide a limited warranty against defective material upon written request. Dryvit shall make no other warranties, expressed or implied. Dryvit does not warrant workmanship. Full details are available from Dryvit Systems, Inc.

**1.11 DESIGN RESPONSIBILITY**

- A. It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for their intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings and the like. Dryvit has prepared guidelines in the form of specifications, application details, and product data sheets to facilitate the design process only. Dryvit is

not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Dryvit or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to Dryvit's published comments.

**1.12 MAINTENANCE**

- A. All Dryvit products are designed to minimize maintenance. However, as with all building products, depending on location, some cleaning and minimal maintenance may be required. See Dryvit publication DS152 on Cleaning and Recoating.
- B. Sealants and flashings shall be inspected by the owner or their agent on a regular basis and repairs made as necessary.

**PART II-PRODUCTS**

**2.01 MANUFACTURER:**

- A. All components of the Classic Cement Plaster System II shall be obtained from Dryvit or its authorized distributors.

**2.02 MATERIALS**

- A. Weather-Resistive Barrier Backing (by others).
  1. Shall comply with all applicable local building code requirements.
  2. Two layers are required.
  3. Grade D-30 or 60 minute paper shall meet Federal Specification UU-B-790a.
  4. Other code approved weather-resistive barrier.
- B. Metal Lath (by others): Specific type to be selected by designer based on specific project requirements.
  1. Self-Furring Diamond Mesh metal lath shall be galvanized, 1.9 kg/m<sup>2</sup> (3.4 lbs/yd<sup>2</sup>) and comply with ASTM C841 and C847.
  2. Self furring welded wire lath, minimum 16 gauge, shall be galvanized with openings not exceeding 50 mm x 50 mm

## Classic Cement Plaster System II Specifications

DS184

- (2 in x 2 in), and comply with ASTM C841 and C847.
- 10 mm (3/8 in) galvanized rib lath shall comply with ASTM C841 and C847.
  - Self-furring woven wire lath, minimum 38 mm (1½ in) by 17 gauge, shall be galvanized and comply with ASTM C841 and C847.
- C. Accessories (by others).
- Type, style and manufacturer shall be indicated on construction documents.
  - Depth of accessories (grounds) shall be sized for the plaster thickness.
  - In corrosive environments, accessories manufactured of PVC or zinc are recommended.
  - Steel accessories shall meet ASTM C841.
  - PVC accessories shall meet ASTM D1784 and C1063.
- D. Bonding Agent: Shall be applied to clean, sound concrete and masonry surfaces when lath is not used.
- Shall be Dryvit AC-100™: A 100% acrylic bonding agent used to improve bond to concrete and masonry surfaces.
- E. Plaster Base Coat:
- Dryvit Classic Cement Plaster Base: A fiberglass reinforced, cement plaster mix utilizing alkali resistant fibers and proprietary cementitious admixtures which is field mixed with water and Dryvit AC-100 activator. Classic Cement Plaster Base is packaged in 36.3 kg (80 lb) bags.
- F. Admixture: A 100% acrylic additive, which is mixed with Classic Cement Plaster Base to improve the curing and strength properties.
- Dryvit AC-100: A 100% acrylic product, which is added to the mixing water for the Dryvit Classic Cement Plaster Base in the amount of .47 L (16 oz) per bag.
- G. Primer:
- Dryvit Color Prime-W: A water-based, pigmented acrylic primer applied over the cured Classic Cement Plaster base coat to improve adhesion and provide a more uniform appearance of the finish.
- H. Dryvit Finish(es): 100% acrylic finishes with integral color and texture. Shall be the type, color and texture as selected by the architect/owner and shall be of the following types:
- Standard DPR (Dirt Pickup Resistance)
    - Quarzputz®, Sandblast®, Freestyle®, Sandpebble®, and Sandpebble Fine™
    - Sandpebble® **E**, and Sandpebble Fine™ **E**
  - Medallion Series PMR™ (Proven Mildew Resistance)
    - Quarzputz, Sandblast, Freestyle, Sandpebble, Sandpebble Fine
    - Sandpebble **E**, and Sandpebble Fine **E**
  - Elastomeric DPR (Dirt Pickup Resistance)
    - Weatherlastic™ Quarzputz, Weatherlastic Sandpebble, Weatherlastic Sandpebble Fine, Weatherlastic Adobe™
  - Specialty
    - Ameristone™
    - Stone Mist®
    - Custom Brick™
    - Limestone™
    - Brownstone™
2. The lath is of the proper type, installed tight, properly fastened, and meets the requirements of ASTM C1063 and local building code requirements.
- All accessories including corner aids, control and expansion joints, casing beads, etc. are properly fastened and positioned according to contract drawings and local building code requirements.
  - The weather-resistive barrier is of a proper type and has been installed in a weatherboard fashion in accordance with building code and manufacturer's requirements.
  - Doors, windows, decks, and other openings and penetrations have been properly flashed in accordance with building code and contract documents.
  - Metal roof flashing has been installed in accordance with Asphalt Roofing Manufacturers Association (ARMA) Standards.
  - The substrate is flat within 6.4 mm (1/4 in) in 3 m (10 ft).
  - The contractor shall notify the general contractor and/or owner and/or architect of all discrepancies. Do not proceed until unsatisfactory conditions are resolved.

### 3.02 PREPARATION

#### A. Protection

- The Classic Cement Plaster System II materials shall be protected by permanent or temporary means from weather and other damage prior to, during, and following application, until dry.
  - Protect adjoining work and property.
- B. Solid surfaces such as precast or cast-in-place concrete, masonry or stone, shall have adequate suction and surface roughness to provide bond. Smooth or non-absorptive

## PART III-EXECUTION

### 3.01 EXAMINATION

- A. Prior to installation of the Classic Cement Plaster System II, it is the contractor's responsibility to ensure that:
- The surfaces to receive plaster are free of dust, loose particles, oil and other conditions that would affect the adhesion or installation of Classic Cement Plaster System II materials.

surfaces shall be prepared by the following methods:

1. Sandblasting, wire brushing, acid etching, chipping or any combination thereof.
2. Application of a coat of Dryvit AC-100 bonding agent using a brush, roller or spray and backrolled.  
AC-100 shall be allowed to dry prior to Classic Cement Plaster Base application.
3. Where effective bond cannot be achieved, the entire surface shall be covered with furred metal lath in accordance with ASTM C1063 and building code requirements.

**3.03 INSTALLATION**

**A. Mixing**

1. Dryvit Classic Cement Plaster Base:
  - a. Classic Cement Plaster Base is packaged in 36.3 kg (80 lb) bags and is field mixed with 6.6 L (1¾ gal) of cool, clean potable water, and 470 ml (16 oz) of AC-100 activator.
  - b. Classic Cement Plaster Base is mixed in a mortar mixer for 3 to 5 minutes. Add AC-100 and 4.7 L (1.25 gal) of water to the mixer and, with the mixer engaged, slowly add the Classic Cement Plaster Base until mixed to a uniform consistency. Add the remaining water as necessary to adjust to a workable consistency. Mix only enough material that can be applied within one hour.
  - c. Do not apply material that has begun to hydrate.
2. Dryvit Color Prime-W and AC-100:
  - a. Color Prime-W and AC-100 are factory blended and requires no

additives. Mix the liquid in the pail as required to ensure a uniform consistency.

3. Dryvit Finishes:
  - a. Dryvit Finishes are factory blended and require no additives. Mix each pail to a uniform consistency adding a small amount of water as needed to adjust workability. Ensure that the same amount of water is added to each pail of the same color.
  - b. Refer to the product literature for the specific finish being used for more complete instructions.
- B. Application of Classic Cement Plaster Base to metal plaster bases: Classic Cement Plaster Base shall be applied in accordance with local and national code requirements, ASTM C926 and as follows:
  1. Apply the first (scratch) coat to a nominal thickness of 10 mm (3/8 in) so that the lath is completely embedded and provides approximately 3 mm (1/8 in) cover to allow for scratching.
  2. Allow to become firm, and score the entire surface. Vertical surfaces shall be scored horizontally to provide proper keying of the second coat.
  3. The second coat is applied once the first coat is sufficiently rigid to accept the application without being disturbed.
  4. The second coat is applied with sufficient pressure and material to ensure tight contact with the first coat and bring the nominal thickness to approximately 19 mm (3/4 in).
  5. Using a rod, darby or other straightedge, the surface of the second coat is brought to

a true, even plane, flush with plaster grounds.

6. The surface is floated to promote densification and to provide a surface receptive to bonding of the finish. A wood or hard rubber float is recommended to ensure a surface with adequate "tooth" for the finish application. Floating to a smooth surface is not recommended and may result in cracking or poor adhesion of the finish coat.
- C. Application of Classic Cement Plaster Base to solid bases: Classic Cement Plaster Base shall be applied in accordance with local and national code requirements, ASTM C926 and as follows:
  1. High suction bases shall be evenly dampened with clean water prior to application of plaster.
  2. Dampening is not recommended where Dryvit AC-100 bonding agent will be used.
  3. The first coat is applied to a nominal 5 mm (1/4 in) thickness and with sufficient pressure to ensure intimate contact and complete coverage. The entire surface shall be scored horizontally as soon as the first coat achieves sufficient firmness.
  4. The second coat is applied in the same manner as the first and brought to a true and planar surface using a rod or straightedge to achieve a total nominal thickness of 12 mm (1/2 in).
  5. The surface is floated to promote densification and to provide a surface receptive to bonding of the finish. A wood or hard rubber float is recommended to ensure a surface with adequate

## Classic Cement Plaster System II Specifications

DS184

“tooth” for the finish application.

### D. Curing of Classic Cement

Plaster Base:

1. Classic Cement Plaster base requires adequate moisture to allow continuous hydration of the cement. Moist curing for a minimum of 4 days shall be provided. The contractor shall follow local code requirements, climate and practices to determine specific procedures and duration.
2. Classic Cement Plaster base coat shall be allowed to cure for a minimum of 7 days prior to coating with Color Prime-W and Dryvit Finish.

### E. Application of Dryvit Color Prime-W.

1. Ensure that the surface of the wall is cured, clean, dry and free of efflorescence, oil or other contaminants that would impair adhesion.
2. To minimize finish color variations it is recommended that Color Prime-W be ordered in a color to match the selected finish.
3. Stir to a smooth homogeneous consistency and apply to the wall using a roller, brush or airless spray equipment. Refer to published Color Prime-W data sheet for more complete instructions.

4. Allow to completely dry.

### F. Application of Dryvit Finishes

1. Ensure that the surface of the wall is clean, dry and free of any contaminants that may impair the adhesion of surface finish.
2. Dryvit Finishes may be either spray or trowel applied to the dried primer.
3. Always apply the finish to a natural break to avoid visible cold joints.
4. Always work the shady side of the wall or provide shading to avoid application in direct sunlight.
5. Dryvit Finishes shall be applied in accordance with published Dryvit instructions for the specific finish being used. Refer to the published product sheet for the specified finish.

### 3.04 FIELD QUALITY CONTROL

- A. The lath and weather-resistive barrier installation shall be inspected as required by the local building department prior to plaster materials being applied.
- B. The contractor shall be responsible for the proper application of the Classic Cement Plaster System II materials.

C. Dryvit assumes no responsibility for on-site inspections or application of its products.

D. Independent third party inspection is recommended to verify installation according to code and contract documents. As a minimum, it is recommended that inspection items include installation of the weather-resistive barrier, flashings, metal lath and accessories, Classic Cement Plaster System II materials, and sealants.

### 3.05 CLEANING

- A. All excess Classic Cement Plaster System II materials shall be removed from the job site by the contractor in accordance with contract provisions.
- B. All surrounding areas, where the Dryvit Classic Cement Plaster System II has been applied, shall be left free of debris and foreign substances resulting from the contractor's work.

### 3.06 PROTECTION

- A. The system shall be protected from weather and other damage until permanent protection in the form of flashings, sealants, etc. are installed.

## DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Classic Cement Plaster System II products as of the date of publication of this document and is presented in good faith. Dryvit Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To insure that you are using the latest, most complete information, contact:

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