

DRYVIT SYSTEMS, INC.
MANUFACTURER'S SPECIFICATIONS
CSI MASTERFORMAT SECTION 09 96 53
WEATHERLAST WATERPROOFING PRODUCTS

PART I - GENERAL

1.01 SCOPE

A. Provide all labor, materials and equipment necessary to apply the Weatherlast waterproofing and restoration products over exterior concrete, stucco, masonry and exterior insulation and finish systems.

1.02 RELATED SECTIONS

- A. Unit Masonry 04 20 00
- B. Concrete 03 00 00
- C. Joint Protection 07 90 00
- D. Exterior Insulation and Finish System 07 24 00

1.03 REFERENCES

- A. Section Includes
- 1. ASTM E 96: Test Method for Water Vapor Transmission of Materials
 - 2. ASTM G 26: Practice for Operating Light Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Non Metallic Materials
 - 3. ASTM C 661-85: Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
 - 4. ASTM B 117-90: Test Method of Salt Spray (Fog) Testing
 - 5. ASTM D 610-85: Method for Evaluating Degree of Rusting on Painted Steel Surfaces
 - 6. ASTM D 522-88: Test Method for Mandrel Bend Test of Attached Organic Coatings
 - 7. ASTM D 660-93: Test Method for Evaluating Degree of Checking of Exterior Paints
 - 8. ASTM D 661-93: Test Method for Evaluating Degree of Cracking of Exterior Paints
 - 9. ASTM D 662-93: Test Method for Evaluating Degree of Erosion of Exterior Paints
 - 10. ASTM D 714-87: Test Method for Evaluating Degree of Blistering of Paints
 - 11. ASTM D 4260: Standard Practice For Acid Etching Concrete.
 - 12. ASTM D 4258: Standard Practice For Surface Cleaning Concrete For Coating
 - 13. ASTM D 4259: Standard Practice For Abrading Concrete
 - 14. ASTM D 2794: Test Method for Resistance of Organic Coatings to the Effects of Rapid Deformation (Impact)
 - 15. ASTM D 4214-89: Test Method for Evaluating Degree of Chalking of Exterior Paint Films
 - 16. ASTM D 2370-92: Test Methods for Tensile Properties of Organic Coatings
 - 17. Fed Spec TT-C-555-B Wind Driven Rain
 - 18. DS433, Weatherlastic® Smooth
 - 19. DS436, Weatherprime®
 - 20. #5100 Data Sheet Plastiflex® Elastomeric Adhesive Caulk (Brush Grade) by Scott Paint Company
 - 21. #5200 Data Sheet Plastiflex® Elastomeric Patching Compound (Knife Grade) by Scott Paint Company

1.04 DESCRIPTION

A. The Dryvit Weatherlast products include a waterproof elastomeric coating and primer for use over exterior concrete, masonry, stucco and exterior insulation and finish systems (EIFS).

1.05 SUBMITTALS

A. Samples

- 1. The applicator shall submit two (2) 2 ft x 4 ft (.61 m x 1.2 m) samples of the proposed finish to the architect and/or owner for approval. **NOTE: Weatherlastic Smooth colors are slightly darker than the same color in a Dryvit DPR finish. Exact color match from batch to batch cannot be guaranteed.**

B. Mock-up

- 1. A minimum 6 ft x 6 ft (1.8 m x 1.8 m) area of actual project wall shall be coated with the accepted finish to establish a standard of acceptance by the owner, architect or project manager.

C. Manufacturer's Information

1. Submit manufacturer's product information and specifications.

1.06 QUALITY ASSURANCE

A. Qualifications

1. Manufacturer shall be Dryvit Systems, Inc.
 - a. Materials shall be manufactured at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
2. The applicator shall be knowledgeable in the application of exterior acrylic and elastomeric architectural coatings and waterproofing products.

B. Substrates

1. Application of Weatherlast products shall be applied only to the following substrates when prepared in accordance with this specification.
 - a. Sound unglazed brick, unit masonry or concrete.
 - b. Sound stucco.
 - c. Sound exterior insulation and finish systems (EIFS).
2. The applicator shall verify that the proposed substrate is acceptable prior to application of Weatherlast products.

C. Performance Requirements

1. The Weatherlastic Smooth coating shall meet or exceed the following tests.
 - a. Water Vapor Transmission (ASTM E 96 Water Method) - 15 perms at 10 mils dry film thickness.
 - b. Accelerated Weathering (ASTM G 26 Test Method 1, BH Apparatus)
 - 1) After 3,000 hours exposure, the coating shall exhibit as a minimum:
 - a) Chalking index of 9 per ASTM D 4214-89 Method B
 - b) Checking index of 10 per ASTM D 660-93
 - c) Cracking index of 10 per ASTM D 661-93
 - d) Blistering index of 10 per ASTM D 714-87
 - e) Erosion index of 9 per ASTM D 662-93
 - f) Rusting index of 10 per ASTM D 610-85
 - c. Salt Spray (Fog) Resistance (ASTM B 117-90)
 - 1) After 500 hours exposure, the coating shall exhibit as a minimum:
 - a) Chalking index of 10 per ASTM D 4214-89 Method B
 - b) Checking index of 10 per ASTM D 660-93
 - c) Cracking index of 10 per ASTM D 661-93
 - d) Blistering index of 10 per ASTM D 714-87
 - e) Erosion index of 10 per ASTM D 662-93
 - f) Rusting index of 10 per ASTM D 610-85
 - d. Hardness (ASTM C 661-85) Type A Shore Durometer; 69.5 @ 20 mils DFT
 - e. Impact Resistance (ASTM D 2794); 98 in-lbs.
 - f. Resistance to Wind Driven Rain (Federal Test Method TT-C-555B) - Passes
 - g. Low-Temperature Flexibility; 1/8 in (3.2 mm) diameter mandrel at -30 °F (-34 °C). No cracking or adhesion loss (Evaluated per ASTM D 522-88).
 - h. Tensile Properties (ASTM D 2370-92):
 - 1) Tensile Strength - 100 psi @ 77 °F (25 °C) 488 psi @ - 0 °F (18 °C)
 - 2) Elongation - 77% @ 77 °F (25 °C) 123% @ -0 °F (18 °C)

1.07 DELIVERY, STORAGE and HANDLING

- A. All Weatherlast materials shall be delivered to the job site in the original, unopened packages with labels intact.
- B. Upon arrival, materials shall be inspected for physical damage, freezing or overheating. Questionable materials shall not be used.
 1. All Weatherlast materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other damage. Minimum storage temperature shall be 45 °F (7 °C).
 2. For all other products, refer to specific product data sheets.
- C. Maximum storage temperature shall not exceed 100 °F (38 °C). **NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C). Finishes exposed to temperatures over 110 °F (43 °C) for even short periods may exhibit skinning, increased viscosity and should be inspected prior to use.**

1.08 JOB CONDITIONS

- A. Existing conditions: The applicator shall have access to electric power, clean water and a clean work area at the location where the Weatherlast materials are to be installed.
- B. Environmental Conditions:
1. The ambient air and wall temperatures shall be from 45 °F (7 °C) minimum to 100 °F (38 °C) maximum for application of Weatherlastic Smooth, and Weatherprime®. The temperature shall remain so for at least 24 hours thereafter or longer if necessary for the materials to be sufficiently dried.
- C. Protection
1. Adjacent areas/materials shall be protected from damage, drops and spills during the application of Weatherlast materials.
 2. The Weatherlast materials shall be protected by permanent or temporary means from weather and other damage, prior to, during, and immediately after application. Care must be taken to prevent condensation and/or heat buildup when using tarp or plastic to prevent damage to the Weatherlast materials.
- D. Sequencing and Scheduling:
1. Application of the Weatherlast materials shall be coordinated with other construction trades.
 2. Sufficient labor and equipment shall be employed to ensure a continuous operation.

1.09 LIMITED MATERIALS WARRANTY

- A. Dryvit shall offer a written Limited Materials Warranty upon receipt of a properly executed warranty request and completed project form.

1.10 DESIGN RESPONSIBILITY

- A. It is the responsibility of the specifier to determine if a product is suitable for its intended use. The specifier selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings, etc. Dryvit has prepared guidelines in the form of specifications, installation details, and product data sheets to facilitate the design process only. Dryvit Systems, Inc. is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, etc. or for any changes which specifiers or their appointed representatives may make to Dryvit's published comments.

1.11 MAINTENANCE

- A. All Dryvit products are designed to require minimal maintenance. However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication DS152 on Cleaning and Recoating.

PART II - PRODUCTS**2.01 GENERAL**

- A. All Weatherlast products shall be supplied by and obtained from Dryvit or its authorized distributors. Substitutions or addition of other materials will void the warranty.

2.02 COMPONENTS

- A. Weatherlastic Elastomeric Coating
1. Weatherlastic Smooth: A smooth, nontextured 100% acrylic based coating utilizing an elastomeric binder.
- B. Weatherprime Acrylic Primer: A pigmented, exterior, acrylic emulsion primer.

2.03 MATERIALS

- A. Water: Shall be clean and potable.
- B. Patching Material
1. The following products have been evaluated and found to be compatible with Weatherlast products:
 - a. #5100 Plastiflex® Elastomeric Adhesive Caulk (brush grade) - Available from Scott Paint (www.scottpaint.com) (1-800-282-2016)
 - b. #5200 Plastiflex Elastomeric Patching Compound (knife grade) - Available from Scott Paint (www.scottpaint.com) (1-800-282-2016)

NOTE: Dryvit does not warrant the performance of the Scott Paint products.

2.04 EQUIPMENT

- A. Mixing shall be done with a clean Goldblatt Jiffler Mixer #15311H7 or equivalent powered by a 1/2 in (12.7 mm) drill at 400-500 RPM.
- B. Tools associated with the painting trade.

PART III - EXECUTION**3.01 INSPECTION**

- A. Examination of Substrate.
 - 1. Ensure that the substrate is of a type and condition listed in Section 1.06.B.
- B. Ensure that minimum application temperatures are met per Section 1.08.B.

3.02 SUBSTRATE PREPARATION

- A. Coated Substrates
 - 1. Shall be cleaned to remove all chalk dirt, dust, loose coatings and other foreign materials.
 - 2. Loose, delaminated or spalled areas shall be repaired with an appropriate procedures and materials compatible with the substrate material.
- B. Noncoated Surfaces
 - 1. Surfaces shall be cleaned to remove all dirt, dust, form release agents, or other foreign matter which may interfere with the bond of a finish coating.
 - 2. Loose, delaminated or spalled areas of masonry, stucco or concrete substrates shall be repaired with an appropriate cementitious patching compound and allowed to cure a minimum of 7 days.
 - 3. Concrete shall cure a minimum of 28 days prior to application of the Weatherlast products.
 - 4. Surfaces shall be primed with Weatherprime tinted to match the final color.
 - 5. Cracks shall be treated as per Section 3.02.D.
 - 6. Sills
 - a. All sills shall receive a liberal coat of compatible brush grade patching compound.
 - 7. Parapets
 - a. Treat top and back of parapets in the same manner as exterior walls, terminating at roof counter flashing.
 - b. Recaulking to roof flashing may be required. Use an appropriate high grade urethane sealant and allow to cure prior to application of compatible brush grade patch compound.
 - 8. Terminations and juncture of dissimilar materials.
 - a. Caulk as necessary using compatible high grade urethane sealant and allow to cure prior to application of compatible brush grade patch compound.
- C. New Construction
 - 1. Stucco
 - a. Stucco shall be dry and fully cured for a minimum of 7 days prior to application of coatings.
 - b. Clean stucco walls to ensure removal of dirt, dust, efflorescence or any other foreign matter which may interfere with bond of a surface coating.
 - c. Prime stucco surface with Weatherprime acrylic primer.
 - 2. Masonry
 - a. Remove all fins, mortar droppings, etc. and ensure that mortar joints are sound and free of cracks or voids.
 - b. Surface should be clean, dry and free of dust, dirt, or other foreign matter which may interfere with application or bond of a surface coating.
 - 1. Surface shall be cleaned in accordance with ASTM D 4261 Standard Practice For Surface Cleaning Concrete Unit Masonry For Coating.
 - c. Face of block shall be filled with a block filler or cementitious parge coat and allowed to dry. As an alternate, a skim coat of Genesis[®], Primus[®] or Primus[®] DM mixture may be used.
 - 3. Concrete; precast, tilt-up, poured-in-place
 - a. Concrete shall be allowed to cure a minimum of 28 days prior to application of surface coatings.
 - b. Surfaces shall be free of dirt, dust, form release agents, efflorescence, curing compounds, etc.
 - c. Very smooth precast or poured-in-place concrete shall be cleaned by appropriate methods to ensure a proper bond of surface coatings. Refer to:
 - 1. ASTM D 4260: Standard Practice For Acid Etching Concrete.
 - 2. ASTM D 4258: Standard Practice For Surface Cleaning Concrete For Coating.
 - 3. ASTM D 4259: Standard Practice For Abrading Concrete.
 - d. Apply Weatherprime acrylic primer to the concrete surface and allow to dry.
- D. Cracks shall be treated as follows:
 - 1. Static cracks up to 1/32 in (.8 mm) can be bridged by Weatherlastic finishes without special treatment.
 - 2. Static cracks up to 1/8 in (3.2 mm) in width in concrete, CMU or stucco.
 - a. Remove all loose material and clean the crack.
 - b. Apply compatible patch compound directly over the crack and feather out a minimum of 4 in (102 mm) on each side.

3. Static cracks 1/8 in to 1/4 in (3.2 mm to 6.4 mm) wide in concrete, CMU, or stucco.
 - a. Chip or grind out crack to a minimum 1/4 in (6.4 mm) wide by 1/4 in (6.4 mm) deep groove.
 - b. Clean and remove all loose materials.
 - c. Fill groove with compatible knife grade patch compound.
 - d. Bridge crack with compatible brush grade patch compound. Apply at approximately 1/4 in (6.4 mm) thickness over the crack and feather out a minimum of 102 mm (4 in) on each side.
4. Static cracks over 1/4 in (6.4 mm) wide in concrete, CMU, or stucco.
 - a. Clean and remove all loose and unsound material from crack.
 - b. Repair crack with non-shrinking cementitious patching mortar or cement plaster mix and allow to cure a minimum of 7 days.
 - c. Coat with Weatherprime and top dress with a compatible patching material if necessary.
5. Dynamic cracks 1/16 in to 1/2 in (1.6 mm to 12.7 mm) wide in concrete, CMU, or stucco.
 - a. Chip or grind out the crack so that the width is equal to the depth, but not less than 1/4 in (6.4 mm).
 - b. Clean and remove all loose material from crack.
 - c. Fill the crack with a high grade urethane sealant. Tool into joint and allow to cure minimum 24 hours.
 - d. Apply a coat of compatible brush grade patch compound over the crack and feather out to a minimum of 4 in (102 mm) on each side.
6. Prime patched surfaces with Weatherprime acrylic primer.
7. Cracks in EIFS systems shall be repaired using procedures described in Dryvit publication DS498.
8. EIFS surfaces shall be skimmed out with Dryvit NCB™ or Freestyle® to fill in texture prior to application of textured Weatherlast finishes.

3.03 WEATHERLASTIC APPLICATIONS

- A. The substrate and substrate preparation shall be inspected by the contractor to ensure it is in compliance with this specification.
- B. Mixing
 1. Weatherlastic Smooth coating and Weatherprime shall be mixed thoroughly to a uniform homogeneous consistency using a Goldblatt Jiffler Mixer No. 15311H7 powered by a 1/2 in (12.7 mm) drill 400-500 RPM or equivalent.
- C. General.
 1. The Weatherlastic Smooth coating can be brush, roller, or spray applied in accordance with specific product instructions.
 2. No additives shall be added under any circumstances.
 3. Weatherlastic Smooth shall be applied to an entire wall surface in a continuous application.
 4. The coating shall be protected from airborne contamination such as dust, soot, etc. and from weather and other damage until fully dried.
 5. The wall surfaces to be coated shall not be hot to the touch and the coating must be applied in the shade.
- D. Compatible Patching Material
 1. Brush grade patching material shall be applied using a nylon brush to the required thickness.
 2. Knife grade patching material shall be applied using a putty knife or spatula to the required thickness.
- E. Weatherprime
 1. Shall be applied to recommended coating thickness by brush, roller or airless spray equipment.
 2. A maximum 3/4 in (19 mm) nap polyester or polyester blend with nylon or lamb's wool, beveled ends and phenolic core is recommended.
 3. A 18 in (457 mm) wide roller frame with 2 1/4 in (57 mm) inside diameter roller is recommended.
 4. Apply in a continuous application, maintaining a wet edge, to a natural break.
- F. Weatherlastic Smooth Coating Application
 1. Brush application recommended only for cutting in and trim, not for entire wall elevation.
 - a. Nylon bristle brush is recommended.
 - b. For waterproofing performance, a minimum 11 mils dry film thickness (22 mils wet film thickness), shall be applied.
 2. Roller Application
 - a. Minimum 10 in (254 mm) wide roller cover with 1 1/4 in - 1 1/2 in (32 mm – 38 mm) nap is recommended.
 - b. Completely saturate the roller cover and keep the roller loaded with coating to avoid foaming. Do not dry-roll or over-roll as this will cause excessive entrapment of air within the coating.
 - c. For waterproofing performance, a minimum 11 mils dry film thickness (22 mils wet film thickness), shall be applied.

3. Spray Application

- a. Application by airless spray equipment or mastic pump and gun allows application of coating at total required application rate with a minimum of stipple or thickness variations.
- b. Equipment should have the capacity to pump minimum of 2 gal (7.6 L) of coating per minute.
- c. Material hose should be minimum 1/2 in (12.7 mm) I.D. for spraying coating more than a 50 ft (15.2 m) length. Minimum bursting of 800 lbs (360 kg) is recommended.
- d. Tip orifice sizes of .021- .032 will be required depending on equipment used.
- e. Cross apply coating holding spray gun perpendicular to, and approximately three feet from the surface. Avoid excessive material build-up by holding spray gun away from the wall when pulling the trigger, then bringing gun across area to be coated. Maintain a wet edge, and avoid starting and stopping in the middle of the wall. Do not attempt to overreach spray pattern as this may result in appearance of irregular spray pattern. Place scaffolding and equipment to facilitate quick application without numerous interruptions.
- f. A 10% loss from overspray should be anticipated.
- g. Backrolling over sprayed areas is recommended to control pinholing on spray applications over porous surfaces.
- h. All sprayed applications must be free of pinholes to insure waterproofing performance.
- i. For waterproofing performance, a minimum 11 mils dry film thickness (22 mils wet film thickness), shall be applied.

3.04 FIELD QUALITY CONTROL

- A. Dryvit assumes no responsibility for on-site inspections. Dryvit Systems, Inc. and/or its distributors will provide field service support if reasonably requested by the applicator. The designer, general contractor, or their appointed representative should make periodic on-site inspections to ensure that the Dryvit materials are being installed in strict accordance with Dryvit's specifications. The applicator shall be responsible for the proper application of the Dryvit materials. **NOTE: Weatherlastic Smooth colors are slightly darker than the same color in a Dryvit DPR finish. Exact color match from batch to batch cannot be guaranteed.**
- B. If requested, the applicator shall certify in writing that the quality of work performed relative to the substrate system, details, installation procedures and workmanship is in accordance with project specifications and manufacturer's instructions.
- C. If requested, the sealant applicator shall certify in writing that the sealant application is in accordance with the sealant manufacturer's and Dryvit's recommendations.

3.05 CLEAN-UP

- A. Materials left over by the applicator at the job site shall be removed by the applicator.
- B. The applicator shall clean adjacent materials and surfaces and the work area of foreign materials resulting from their work.

Information contained in this specification conforms to standard detail and product recommendations for the installation of Dryvit Systems, Inc. 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 Dryvit Systems, Inc. at:

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