



SECTION 07241

PROMOULD® PRE-COATED FOAM ARCHITECTURAL DETAILS

PART I GENERAL

1.01 Description

- A.** Promould® Pre-Coated Architectural Details are manufactured by Decorawall® Inc. An EPS foam core is precisely cut and preformed, then coated with a light weight polymer modified acrylic based flexible cementitious coating, a glass fibre mesh embedded within. This state of the art process produces a ready for Installation and Finishing EIFS type Architectural Detail.
- Promould® Pre-Coated Architectural Details are illustrated and described in a Promould® by Decorawall® Inc. Product Catalogue-Brochure, and provide's the following products with variable aesthetics:
 - Pilasters, Columns, Bases & Capitals
 - Quoins, Keystones & Custom Details
 - Variable moldings inclusive of Sills, Bands & Cornices etc.

1.02 Related Work Specified Elsewhere

- A.** Sec. 07240 Exterior Insulation and Finish Systems
- Sec. 07900 Sealant
 - Sec. 04200 Unit Masonry
 - Sec. 05400 Metal Framing
 - Sec. 03300 Cast-in-place Concrete
 - Sec. 06100 Framing



1.01 Terms and Definitions:

- a) **Architects-Designers:** A licensed professional under contract with an owner and specifies the Architectural Details to be used.
- b) **Adhesive:** A material applied to the back of a Promould® Detail which is used to attach the pre-coated Foam Detail to a suitable substrate.

- **Base Coat:**

The material applied to the shaped EPS foam core, providing a durable, flexible and weather resistant surface to apply specified primer coats and Finishes. The Decorawal® trade name is “PROMOULD®” for the acrylic cementitious base coat used as a coating on Promould Moldings.

- **Backwrapping:**

Where a fibre-mesh being used with an application of base coat onto a EPS Detail, is peeled back from the full length of the Detail and extended from the edges of the Detail onto an existing suitable substrate where the Detail is being applied to.

The mesh from the Detail is then embedded within a proper base coat and finished, using a Finish-Coat.

- **Contractor:**

Qualified and experienced Contractor-Applicator (sub-trade) installing Architectural Details.

- **Details:**

When described “Architectural” as shown under Part I, 1.01 B.

- **EPS:**

Expanded polystyrene rigid insulation, precisely shaped and used as the core for Promould® Pre-coated Architectural Details.

- **Finish:**

The Architect-Designer has the option to specify a suitable Finish from an approved EIFS manufacturer.



- **Detail:**

The Finish product usually is a 100% acrylic polymer-based material offering a variety of integral colors and textures.

- **Expansion Joints:**

This is a joint through the entire building walls, designed to control building movement.

- **Product Expansion Control:**

A joint which junctures the building substrate and allows independent movement in the wall assembly. Product Joints: Where Architectural Details-Moldings are brought together to show aesthetic continuity, by using either butt or mitered methods.

- **Mechanical Fastener:**

An approved device, used as prescribed in conjunction with Details -Moldings, to mechanically attach precoated Architectural Details to an approved substrate.

- **Reinforcing Mesh:**

A glass fibre fabric/mesh, used in conjunction with a base coat, when the base coat is applied to a shaped EPS core, if the base coat requires it's flexural, impact and tensile strengths to be enhanced.

- **Sheathing:**

A material, being either in a sheet or board form, applied to a framed wall system and providing a substrate.

- **Substrate:**

An approved wall surface where Architectural Details/Moldings can be installed with acceptable adhesion procedures.

1.04 Design Qualifications

A. Substrate Wall Systems

- Shall be engineered and approved by others.

The substrate wall systems shall be flat within a ¼" (6.4mm) in a 4' (1.2m) radius, as well as, have a maximum allowable wall system



- **Deflection** under full flexural design loads which does not exceed 1/240 times the span.
- Promould Pre-Coated Architectural Details will be applied to the following recommended substrates and wall surfaces:
 - Stucco, shall be in clean and good condition and structurally sound, approved by Decorawal®;
 - EIFS systems, manufacturer and installation approved and accepted by Decorawal®;
 - Properly finished and cleaned cement board;
 - Poured concrete, well cleaned and free from any contaminants or existing form agents;
 - Unit masonry or veneer to be approved by Decorawal®;
- The Contractor assumes the responsibility and will ensure that the substrate wall system is of a type and a condition, which is acceptable for the application of Architectural Details-Moldings.
- Expansion Joints:
 - It is the responsibility of the Architect-Designer to locate and design all Project Expansion Joints.
 - Expansion Joints shall be installed as a part in the Architectural Detail system but will not be limited to the following locations:
- When Architectural Details span over different substrates;
- When cladding systems have Expansion Joints and Architectural Details span over the Joints;
- When Architectural Details traverse over building Expansion Joints.
- Decorawal Inc. recommends that a minimum ¾" (19mm) wide opening to be created where existing substrate expansion joints configure their way through a Architectural Detail- Molding.
- Sealant, Sealant Systems i.e.: Expansion Joints



- Promould® Detail materials must have 24-48 hours drying time and be completely dry prior to the installation of any sealant.
- A complete sealant system comprises of a sealant, closed cell backer rod, bond breaker tape, primer and specific accessories.
- Sealant shall be a Tremco Spectrum 3044 or equivalent
- Sealant shall comply with EIMA 300.01.
- Promould® Pre-Coated Architectural Details shall conform to Decorawall® Inc. recommendation and be consistent with building project requirements. Decorawall® must be consulted when non-standard Details and project conditions arise.

• Performance References

1. ASTM Standards:

- Surface burning characteristics of building materials, Test method ASTM-E84 ULC 102.
- Smoke development characteristics of building materials, Test method ASTM-E84 ULC 102.
- Vapour permeability characteristics of building materials, Test method ASTM-E96.
- EIMA 101.01 standard test method for freeze-thaw resistance of Exterior Insulation and Finish Systems (EIFS) class P modified ASTM-C67.
- Mandrel flexibility characteristics of building materials Test method ASTM-C203 (Elasticity).
- C578 specification for performed polystyrene thermal insulation.

• EIMA standards:

- EIMA 105.01 standard test method for Alkali resistance of Glass Fibre Reinforcing mesh for use in Exterior Insulation and Finish Systems (EIFS).
- EIMA 101.86 standard test method for impact resistance of Exterior Insulation and Finish Systems (EIFS).
- EIMA 101.83 standard test method for bond strength of adhesive base coats in Exterior Insulation and Finish Systems (EIFS).



1.05 Submittals

- A.** The color and texture of the finishes selected to be used with each Promound profile, shall be submitted for approval.
- The profiles of the Architectural Details shown and specified will represent the profiles to be used on the building project.
 - Copies of the manufacturer specifications and installation instructions for the Promound details chosen, will be submitted.

1.06 Quality Assurance

• Manufacturer:

- Promould Pre-Coated Architectural Detail-Molding manufacturer shall be Decorawall® Inc.
- All associated products and EIFS manufacturer involved with a designated building project shall consult/work closely with Decorawall® Inc. and/or their Distributor-Representative, in order to properly co-ordinate and complete the project by achieving the highest finished building standards possible.

• Architect-Designer:

Decorawall® has prepared specifications, in-depth installation details and application instructions etc., all designed to facilitate the design process only. The Architect-Designer assumes the responsibility to choose products to be adaptable for a specific use and the specifier, working for and representing the building owner, is totally responsible for all decisions pertaining to shop drawings, design, structural adaptation, attachment details etc. Decorawall® Inc. is not liable for omissions and errors directly related to design, shop drawings, attachment details, structural adaptability etc. or any changes made by a Architect-Designer or their appointed representative to any Decorawall published document.



- **Contractor:**

- Contractor shall be experienced and knowledgeable in EIFS application methods and installation of pre-coated Architectural Details.
- Contractor provides job site supervision for experienced workers and suitable equipment to install pre-coated Architectural Details in compliance with manufacturers specifications, recommendations and installation methods.

1.05 Product Delivery Storage and Handling

- Promound® Pre-Coated Architectural Details are to be picked up at the Manufacturer's Factory or an authorized Distributor Centre or delivered to the project site in its original unopened package with labels intact.
- Promound® Pre-Coated Architectural Detail products supplied by the Manufacturer should be stored in a cool dry place and protected from direct sun light, weather and damaging elements.
- All Promould® Pre-Coated Architectural Detail products should be stored at a temperature of not less than 40F (4C).

1.06 Project Conditions:

- **Job Site Conditions:**

The contractor shall have access to electric power and clean potable water. The area where the Promould materials are to be installed should be clean and reasonably accessible.



Environmental and Weather Conditions:

- Wall surface and ambient air temperature shall be at the least, 40F (4C) during the installation of Promould Architectural Detail products.
- Wall surface and ambient air temperatures must remain above 40F (4C) for at least 24 hours after installation or longer if necessary, for the Detail materials to sufficiently dry.

• **Protection:**

- Supplemental heat shall be provided for application when temperature is less than 40F (4.4C).
- During and after the application of Architectural Detail products, the products shall be protected by temporary or permanent means from the weather and other potential damaging elements. Measures should be taken to prevent condensation and/or heat build up when tarps or plastic are used, to prevent damage to Promould products.
- When Promould® products are being applied, adjacent areas/material shall be protected to prevent damage from drops and spills.

• **Sequencing and Scheduling:**

- Promould® Architectural Detail product installation should be co-ordinate with all associated trades.
- Proper equipment and sufficient experienced personal shall be employed to ensure an operation that is continuous, free of scaffold lines, cold joints and texture variations etc.
- Finish coat and sealant should be installed as soon as possible after Architectural Detail installation, to prevent water infiltration behind system.

1.05 Limited Materials and Labor Warranty

Decorawall® Inc. shall provide a one (1)-year limited material warranty for the Promould® Pre-Coated Architectural Details and associated products. Receipt of a properly executed warranty request and completed project form is required.

- The Contractor shall offer a limited one (1)-year labor and workmanship warranty.



PART II PRODUCTS

2.01 Manufacturer

- Promould® Pre-coated EPS Foam Profiles called the “Promould Line” is manufactured by Decorawall® Inc. at 36 Shelley Road, Unit 3, Richmond Hill (Ontario) L4C 5G4, Canada, Telephone: (905) 787- 9166
Facsimile: (905) 787-9618.
- Promould Pre-Coated Architectural Details and components shall be supplied by and obtained from Decorawall Inc. or its authorized Distributors. Substitutions or additions of materials other than specified or approved by Decorawall® in writing will void the warranty.

2.02 Materials

- **Architectural Detail-Moldings**

- Moldings
- Details, Quoins, Keystones
- Columns and Capitals

- **Joint Reinforcing Mesh**

Self adhering glass fibre mesh (Joint Tape Type) weighing a minimum of 95g/m² (2.8oz/ yd²). Rolls consist 100mm (4”) wide by 45.7m (50yd) in length.

- **Fibre Glass Mesh**

The Decorawall® Promould Line cementitious type PB base coat has a compatible balanced open weave glass fibre mesh, 118g/m² (3.5 oz/yd) to EIMA 105.01



- **Rigid Insulation**

Insulation core, rigid expanded polystyrene (EPS) conforming to physical properties of ASTM-C578.Type I or CAN/CGSB-51.20 Type I, 17.0-kg/m³ (1.00b/cu.ft.) density.

- **Adhesive**

A high performance acrylic modified cementitious material available in pails and field mixed with Type 10 or 20 Portland cement at a 1 to 1 ratio or available in bags to be field mixed with water using a ratio specified by a manufacturer recommended by Decorawall® Inc.

- **Promould® Coat**

Decorawall® Promould coating for the Promould Line of Details, is a lightweight polymer-modified acrylic cementitious coating applied to the EPS shapes in a climate controlled plant. Minimum thickness 3.125mm (0.125") according to EIMA 101.1.

- **Finishes**

Finishes as specified and/or recommended by the approved EIFS manufacturer or a finishes-coatings manufacturer approved by Decorawall®. Typically the Finish shall be an acrylic polymer based Finish with a quartz aggregate having an integral color and texture.

- **Primers**

Primer as specified by the approved EIFS manufacturer or a primer manufacturer approved by Decorawall®. Typically the primer shall be an acrylic based and color pigmented to compliment the color of the finish coat.

- **Mechanical Fasteners**

To be used if required and specified. The fastener shall include a corrosion resistant screw which will be suitable for penetration and attachment to substrate, and having a plastic washer shown as follows:

- Grid Mate PB, by Demand Products.
- Wind-Devil, or wind-Devil 2, by Wind-Lock Corporation.
- PB Washer, by ITW Buildex.

An equal to the above approved by Decorawall®.



2.03 Job Site Equipment

- Power and/or hand tools related to the EIFS and plastering trades.
- All material to be job site mixed, shall be mixed with a clean Goldblatt Jiffler Mixer No. 15311H7 using a ½" (13mm) drill at 400-500 RPM or equipment with equivalent power and performance.
- A hot knife or hot grover and a wood router (high speed) with a proper set of bits.

PART III EXECUTION

3.01 Promould® System Installation

• General

- If requested, Decorawall® Inc. will supply data pertinent to all its products and materials inclusive of variable installation procedures relative to substrates and conditions.
- Installation procedures and instructions for Promould® Architectural Details are included in the Promould® by Decorawall® product manual beginning on Page 53, Exhibit 1.A inclusive of Page 63, Exhibit 6.A.

• Surface Preparation

- Both the wall surface and ambient temperature shall be a minimum of 40F (4C) or higher.
- The surface of the substrate and the Promould® Detail shall be clean, dry, and free of grease, paint, oil or any foreign material.
- The surface of the substrate shall be level, plane and true, being 1/8" (3mm) within 4ft. (1.2m).
- Contractor shall report unsatisfactory substrate conditions to general contractor for correction by substrate installer before application of Details.



Attachment

- Promould® Architectural Details shall be attached on to a Decorawall® Inc. approved substrate with a proper adhesive, mechanical fasteners or using a combination of the two.
- The adhesive should be applied as per the Decorawall® installation instructions or as per the EIFS adhesive manufacturer specification or as shown under C.4.
- When mechanical fasteners are used alone, these fasteners should be installed at 16" (400mm) minimum horizontal centers and screwed into the studs.
- Apply adhesive to the entire back surface of the Architectural Detail using a 9.5mm (3/8") notched trowel. Immediately, while the adhesive is still wet, apply by firmly pressing and properly positioning the Architectural Detail onto the substrate. Large Architectural Details require temporary mechanical fasteners as a support system until the adhesive sets.

• Promould Architectural Detail Back Wrapping

Installation procedure for back wrapping is as follows:

- Peel mesh on the back face of the Detail along the entire length and fold over to extend the mesh at the bottom and top of the Detail on to the substrate;
- Apply base coat on the mesh extended from the Architectural Detail onto the substrate and trowel to an acceptable smooth finish for application of the Finish coat.

• Promould® Architectural Detail Joint Treatment

- All miter and butt joints for Architectural Details shall have fiber mesh tape applied where at least 2" (50mm) of fiber tape reinforcement extends onto each side of the joint.
- A Promould® cementitious base coat shall be applied after installation. After the coat is dry, sand any rough edges or trowel marks smooth.

• Sealant Application

- All sealant shall be installed as per manufacturer specifications. Any expansion joints running through Architectural Details shall have sealant systems installed as per manufacturer specifications and exposed joint areas shall be properly treated with a base coat and reinforcing fiber mesh.

• Finish Application

Finish coats shall be applied to the architectural details as per the approved EIFS manufacturer specification.