

PART I – GENERAL

WORK SPECIFIED HEREIN

All labor, materials, equipment and services necessary to furnish and install foam cornices and drainable E.I.F.S. with related accessories and finishes as indicated or specified.

SUBSTITUTIONS

In accordance with Section 01600.

QUALITY ASSURANCE

All products shall be of the highest quality and workmanship. All products utilized as part of the E.I.F.S. System must be those recommended by manufacturer of system.

System Description: A polymer modified stucco cladding system, intended for direct application over monolithic concrete, masonry walls, cementitious panels, glass mat-surfaced gypsum panels and/or plywood or oriented strand board (OSB) sheathing.

The stucco system is intended for use on buildings where the applicable Building Code allows the use of combustible and noncombustible claddings.

MANUFACTURERS' INSTRUCTIONS

Furnish manufacturers' printed instructions for installation of products specified.

MATERIAL - GENERAL

Manufacturers: Dryvit Systems of Canada Outsulation Plus Exterior Insulation Finish System(s) Class PB or acceptable alternative DuROCK PUCCS Exterior Insulation Finish System.

Refer to Materials and Products Schedule for additional information.

WARNING

The EFIS System(s) are designed as drainage wall systems and are detailed to discharge incidental moisture from within the System(s). Specifications should be followed and proper details adhered to, in order to prevent water intrusion, resulting in possible damage to the System(s) or other building elements. Care should be taken to ensure that all building envelope elements, including without limitations, roof designs, windows, flashings, sealants, etc., are compatible with the system(s).

DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the EFIS System. To ensure that you are using the latest, most complete information, refer to manufactures installation instructions.

RELATED SECTIONS

- | | | |
|-----|------------------|-------------------------------|
| .1 | Section 03300 | Cast-in-Place Concrete |
| .2 | Section 04 20 00 | Unit Masonry |
| .3 | Section 06100 | Rough Carpentry |
| .7 | Section 07620 | Sheet Metal Flashing and Trim |
| .8 | Section 07920 | Joint Protection (Sealants) |
| .10 | Section 08411 | Aluminum Framed Entrances |

**PART II – DRYVIT EXTERIOR INSULATION
AND FINISH SYSTEM (S)**

INTRODUCTION

This document contains the Manufacturer's Standard Specification for the EFIS System(s).

DESIGN CRITERIA

- | | |
|----|--|
| .1 | Structural Design |
| .1 | Design professional shall design the back-up wall in full compliance with the requirements of the National Building Code (NBC) of Canada and/or applicable provincial or territorial building codes. Sufficient details on architectural plans and drawings shall demonstrate compliance to the NBC. |
| .2 | Supporting Substrate |
| .1 | All substrates shall be flat and plumb within 2 mm/m (1/4" per 10'), as per ASTM C 1397. |
| .2 | All substrates shall be free of surface contamination, including (but not limited to): dirt, form release agents, efflorescence, oil and chalkiness. |
| .3 | All substrates shall be free of any loose materials and cracks greater than 1 mm (1/24") in width. |
| .3 | Mass Wall Substrates |
| .1 | Mass wall substrates shall be cast-in-place concrete, concrete masonry units or brick. |
| .2 | Cast-in-place, concrete masonry units or brick shall be at least 28 days old. |
| .3 | Unit masonry and brick veneer shall have mortar joints struck flush or recessed. |
| .4 | Sheathing Substrates |
| .1 | Apply the system to one of the following recommended substrate sheathings or substrate system or approved equivalent: |
| .1 | Cementitious backer Board as per ASTM C1325. |
| .2 | Glass-mat gypsum sheathing conforming to ASTM C1177/C1177M. |
| .3 | OSB and/or plywood sheathing conforming to CSA O86. OSB conforming to CSA O325. Douglas fir Plywood conforming to CSA O121, Canadian Soft Plywood conforming to CSA O151 and Poplar Plywood conforming to CSA O153. |
| .2 | Sheathing shall be designed with framing to resist applicable wind loads, with a maximum design deflection of substrate not to exceed L/240. |
| .3 | Sheathing substrates shall be installed in accordance with the sheathing manufacturer's latest installation instructions and in general conformance with ASTM C1280. Sheathing joints shall be properly staggered. Vertical joints shall be offset by at least one framing member. Sheathing shall be: |

- | | |
|--|---|
| <p>.1 Minimum 11.1mm (7/16") and 12.7 mm (1/2") thick for OSB and plywood sheathing respectively.</p> <p>.2 Minimum 12.7 mm (1/2") thick for glass-mat gypsum, cementitious and fibre cement boards.</p> <p>.3 Continuously supported by framing.</p> <p>.4 The sheathing shall be installed horizontally across framing when using wood sheathing.</p> <p>.5 Having sheathing joints not exceeding 3.0 mm (1/8").</p> <p>.6 Installed with corrosion resistance fasteners tight and flush to the sheathing surface. (Not to be countersunk.)</p> <p>.7 Replaced where damaged or weathered.</p> <p>.5 Air/Vapour/Moisture Controls</p> <p>.1 The air/moisture control shall be designed using the specified, designated control membrane. Continuity of these membranes shall be maintained at all wall interfaces.</p> <p>.2 The use, location and performance of the air barrier shall be determined by the design professional.</p> <p>.3 The use and location of the vapour retarder within the wall assembly shall comply with the requirements of Part 5 of the National Building Code (NBC) of Canada and/or the applicable provincial or territorial building codes.</p> <p>.4 Sheathing Membrane</p> <p>.1 At least one layer of sheathing membrane shall be applied beneath Stucco Wall.</p> <p>.2 The sheathing membrane shall conform to Article 9.27.3.3. of Division B of the National building Code (NBC) Canada, and/or to the related article in provincial and territorial codes that are based on the national code.</p> <p>.3 The continuity of the sheathing membrane shall be maintained across windows, openings, joints and all other wall interfaces.</p> <p>.4 The second plane of protection for moisture management shall be made using the code-compliant, stucco system's sheathing membrane and self-furring that could provide a minimum 6 mm from the sheathing membrane and he sheathing.</p> <p>.6 Air/Moisture Transition Membrane</p> <p>.1 The continuity of the air/moisture control elements shall be maintained across joints, windows, openings and all other wall interfaces using the specified transition membranes.</p> <p>.2 Through wall penetrations and openings shall be sealed to the sheathing membrane with transition membranes.</p> <p>.3 Transition membranes shall be installed at all movement joints, roof junctions and window and door interfaces.</p> <p>.4 Transition membranes shall be installed in conformance with manufacturers' instructions.</p> | <p>.5 Transition membranes shall be as listed in Part 2, "Products" of this specification. No other generic transition membranes should be permitted.</p> <p>.7 Inclusion of drainage mediums or capillary break</p> <p>.1 Where required to have a drained and vented airspace between the stucco and the backing assembly, the drainage medium and/or the capillary break shall be specified by the designer who shall determine the spacing and amount of drainage and/or venting required for the stucco system.</p> <p>.2 Drainage medium or a capillary break between the stucco system and the backing assembly shall be vented.</p> <p>.8 Code-related Fire Protection</p> <p>.1 The stucco system is intended to be used in combustible and/or non-combustible constructions. When used in non-combustible construction, the scratch coat and the base coat shall be in conformance with CAN/ULC S114, "Test for Determination of Non-Combustibility in Building Materials".</p> <p>.2 Where required to meet the requirements of CAN/ULC S114, the compliant stucco system shall be listed with an accredited 3rd party certification organization for validating such performance.</p> <p>.9 Design Details at Terminations</p> <p>.1 The stucco system shall extend a minimum of 25 mm (1") below the sill plate onto the foundation wall. The system shall terminate at least 200 mm (8") above finished grade and 50 mm above the roofing system.</p> <p>.2 The stucco system shall not be used on wall surfaces subject to continuous or intermittent water immersion or hydrostatic pressure.</p> <p>.3 The stucco system shall be terminated a minimum of 12.7 mm (1/2") from adjoining materials at interfaces for sealant applications.</p> <p>.10 Projections and Decorative Elements</p> <p>.1 Ensure termination of the stucco system at roof parapet is covered with continuous waterproofing membrane and sheet metal cap that is coordinated with the roofing contractor.</p> <p>.2 Conform with the following guidelines for length and slope of inclined surfaces:</p> <p>.1 Minimum slope (6:12), for projection greater than 102 mm (4").</p> <p>.2 Minimum slope (3:12), for projection less than 102 mm (4").</p> <p>.3 The stucco system shall not be used for areas defined by codes as roofs.</p> <p>.11 Sealant System</p> <p>.1 Joints in the stucco system shall be sealed using an elastomeric sealant with a closed-cell foam backer rod or bond breaker tape, as specified in Section 07 90 00 and as tested to ASTM C1382.</p> <p>.2 Minimum joint width shall be four times greater than the anticipated range of movement. Sealant shall be applied in a</p> |
|--|---|

	width to depth ration of (4:1), (3:1), (2:1) as recommended by the Sealant manufacturer.	.13	Flashing
	.3 Sealant installation shall conform with the requirements of ASTM C1481.		.1 The stucco system shall be used in conjunction with flashing conforming to Subsection 9.27.3 of Division B of the National Building Code (NBC) of Canada and/or the equivalent requirements of the related applicable provincial or territorial codes.
.12	Expansion and Termination Joints		.2 Provide corrosion-resistant flashing at all roof-wall intersections, windows and door heads and sills, decks, balconies, chimneys, parapet walls, projecting features and other areas as necessary to direct water to the exterior and to prevent water entry behind the cladding.
	.1 Provide two stage sealant joints at all expansion and termination joint locations. The inner joint seal is not required if the water resistive barrier system is continuous behind the outer joint seal and /or penetrations.		.3 Flashing must be installed in accordance with section 07 60 00 and the applicable building codes.
	.2 Sealant Joint Venting		.4 Flashing shall have a slope of not less than 6% towards the exterior, lap not less than 10 mm (3/8") vertically over the building element below, terminate in a drip offset not less than 5 mm (3/16") outward from the outer face of the building and terminate at each end with an end-dam.
	All two stage sealant joints shall be vented:	.14	Finish
	.1 Horizontal joints shall be vented at not greater than 1.2 m (4'-0") on center.		.1 The design professional shall assess the design of the building façade to the desired finish textures and colours that could be expected at various sections of the façade.
	.2 Vertical joints shall be vented at not greater than 3 m (10'-0") on center and/or at not greater than 50 mm (2") below the intersection of vertical and horizontal joints.		.2 Where the type of texture and the intensity of the selected colours include vibrant, accent and / or mass tone colours that are more susceptible to UV degradation, the designer shall specify the use of Durex Kolor Gard Architectural Coatings to augment and heighten the colour fastness.
.3	Expansion joints are required at the following locations:		.3 Sufficient details / notifications on architectural plans and drawings shall demonstrate the required specialized finish texture and colour of the exterior insulation and finish system.
	.1 At through wall penetrations		
	.2 At movement joint locations within the substrate.		
	.3 At building movement joint locations.		
	.4 At floor lines of all wood frame structures and as required by the structural design of other framing types.		
	.5 At junctions with different cladding materials and components.		
	.6 At changes in roof line, building shape or structural system.		
	.7 At changes in substrate materials.		
	.8 At all other locations specified or indicated on drawings		
.4	Control Joints		
	.1 Provide control joints every 13 m2 (144 ft2) of finished surface area on vertical applications and at 9.3 m2 (100 ft2) of finished surface area on horizontal and/or sloped applications.		
	.2 The distance between control joints shall not exceed 5.5 m (18') in either direction or a length-to-width ratio of 2 ½ to 1.		
	.5 Termination joints are required at the following locations:		
	.1 At windows, doors and through-wall penetrations interfaces.		
	.2 200 mm (8") above finished grade.		
	.3 50 mm (2") above roofing system.		

SUBMITTALS

Product Data

1. Submit stucco system's specifications and individual component data sheets to show compliance to the intent of the design specifications, and installation instructions.
2. Submit approvals and/or evaluations applicable to the system and/or components to be installed.

Shop Drawings

1. Submit shop drawings in accordance with requirements specified in Division 1.
2. Clearly indicate dimensions, tolerances and materials in large-scale details for terminations, drainage/venting, description of related and abutting components and elevations of units with locations of expansion joints, control joints, and reveals.

Samples

1. Prior to application of mock-up, submit duplicate 150mm x 200mm (6" x 8") representative colour samples of each colour and finish coat texture.
2. Maintain an approved sample at the project site.

Closeout Submittals

1. Provide stucco system's maintenance, repair and cleaning procedures.
2. Provide stucco system's material warranty as per section 1.10.
3. Provide workmanship warranty by stucco applicator as per section 1.10.
4. Provide identification labels of colour batch numbers, water resistive barriers, base coat, finish coats and reinforcing mesh used.

QUALITY ASSURANCE

.1 Qualifications

- .1 System Manufacturer: All system components shall be manufactured or sold by the stucco system's manufacturer and purchased from the system's manufacturer and/or its authorized distributors.
- .2 Contractor: Shall be knowledgeable in the proper installation of the stucco system and shall be in possession of the system's current Certificate of Installer. Work of this this specification shall be executed in conformance with good trade practices and manufacturer's installation manual.

.2 Mock-Up

- .1 The contractor shall, before installation works, provide the owner/consultant with a mock-up demonstrating the stucco system's components and application.
- .2 The Mock-up shall be constructed to dimensions and in location specified by the Designer.
- .3 The mock-up system's component shall include the water resistive barrier, reinforcing mesh, base coat and finish coats that would include each colour and texture to be used.
- .4 The mock-up shall demonstrate methods of application as well as typical details at opening (windows, doors etc.) and roofing assemblies.
- .5 The Mock-up shall serve for initial review purposes by the Consultant and when accepted shall represent the minimum standard for work and the basis for acceptance for the rest of the project.
- .6 The mock-up shall be prepared with the same products, components, tools and techniques required for the actual project.
- .7 The approved mock-up shall be available at all time at the jobsite and shall form the basis for acceptance for the remainder of the project.
- .8 Accepted mock-up may remain as part of the work.

**DELIVERY, STORAGE, HANDLING &
PROTECTION**

- .1 All required materials and components shall be supplied by the manufacturer of the stucco system and shall be delivered to job site in original, unopened packaging with all identifying labels and markers clearly visible and intact. Upon delivery, materials shall be inspected for any damages and the system's manufacturer shall be advised, in writing of any damaged and/or unacceptable materials. Any defective materials and/or components shall not be used.

.2 Materials shall be stored in a dry, vented, weatherproof enclosures, stacked off the ground, out of direct sunlight and other detrimental conditions. Pail products and liquid materials shall be stored at ambient temperatures above 5°C and below 35°C. All materials shall be protected from freezing or overheating.

.3 Protective coverings shall be provided to all freshly-applied coatings to protect them from damages due to rain, inclement weather and/or any other damages until the coatings have fully set and cured.

.4 All capping and flashing shall be immediately and properly installed in co-ordination with the application of the stucco system, unless temporary protection has been provided. If capping and flashing or temporary protection have not been provided, the Architect and General Contractor shall be advised accordingly in writing.

.5 All insulation boards shall be protected from direct sunlight.

PROJECT/SITE CONDITIONS

.1 Prior to installation of the exterior insulation and finish system, the substrate shall be examined with respect to the following:

- .1 The substrate shall be type-approved by system's manufacturer.
- .2 The substrate surface shall be free of any deleterious materials such as oil, dust, direct form-release agents, paint, wax glazing, water, moisture, efflorescence, frost, etc.
- .3 The substrate shall be examined for soundness, such as tightness of connections, crumbling, spalling, delamination, voids, loose joints and projections.

.4 The substrate shall be examined for compliance with Contract Documents.

.2 Ambient Conditions

- .1 Application shall take place when ambient and substrate temperature are within the specified limits by manufacturer and when the substrate is free from any moisture arising from condensation, frost, and/or rainfall.
- .2 Do not proceed with application of materials immediately prior to, during, or immediately after inclement weather conditions, nor if adverse weather is anticipated within 24 hours after application.
- .3 Do not apply materials to wet, frozen or frosted surfaces.
- .4 Application of water resistive barrier, base coat and finish coat shall not proceed during rainy conditions or weather conditions with ambient air and/or wall surface temperatures below 5°C, or above 38°C. Wet applied coatings shall be protected from rain until they are completely dry.

.5 Avoid coating surfaces that are directly exposed to direct sunlight or windy conditions.

.6 When necessary, provide temporary enclosures for exterior work and ensure that temporary climatized enclosure is provided in the area of work to maintain the required ambient air temperature prior to, during application and for a minimum of 24 hours after application of coating.

.7 Do not apply finish coat in areas where dust is being generated.

- .8 Proceed with work only when surfaces and conditions are satisfactory for the production of perfect application.
- .9 Protect applied coating from rapid evaporation during dry and hot weather.
- .10 Consult system's manufacturer for recommendations should adverse conditions exist.

WARRANTY

- .1 The warranty period stipulated in the General Conditions of the Contractor shall be extended as follows:
 - .1 The system is eligible for a manufacturer's warranty from the date of substantial completion, upon written request, against defective material. For full applicable warranty details contact the system manufacturer.
 - .2 The manufacturer warranty is effective only when materials and workmanship comply with this specification.
 - .3 The system manufacturer does not warrant workmanship.
 - .4 The system applicator shall warrant workmanship separately against faulty workmanship.

PART III – PRODUCTS

MANUFACTURER

All components of the EFIS Stucco Wall system shall be manufactured and/or distributed by same supplier or one of its authorized distributors. No substitutes of materials shall be allowed without prior written notice of the manufacturer.

SHEATHING MEMBRANE

- .1 Sheathing membranes conforming to the performance requirements of CAN/CGSB-51.32M, Sheathing, Membrane, Breather Type.
- .2 Perforated, #15 asphalt-saturated felt, weighing not less than 0.195 kg/m², in rolls 1 m wide.
- .3 Spun-bonded Polyolefin membranes, Micro-perforated, woven, coated, high-density polyethylene fabrics, or Polypropylene fabrics that hold a Standard Council of Canada (SCC) accredited, 3rd party certification on the capacity of the membrane in achieving at least the minim level of performance required by Division B of the National Building Code (NBC), in the area defined by the objectives and functional statements attributed to Article 9.27.3.2. "Sheathing Membrane and Material Standard".

TRANSITION MEMBRANE

- .1 Durex® EIFS Tape, a 30 mil thick, self-adhering, Styrene Butadiene Styrene (SBS) modified rubberized asphalt membrane with a polyester top surface. Available in rolls 914 mm (36"), 457 mm (18"), 225 mm (9"), 152 mm (6") and 102 mm (4") wide. Durex® EIFS Tape requires the use of Durex® Flex-Seal Primer for proper adhesion.
- .2 Durex® EIFS Tape Super Stick TM, a 17 mil, self-adhering, high performance tape with a polyester fabric top layer. Available in rolls 914 mm (36"), 457 mm (18"), 225 mm (9"), 152 mm (6") and 102 mm (4") wide. Durex® Super Stick TM requires the use of Durex® Flex-Seal primer for proper adhesion.

- .3 Durex® Flex-Seal Membrane, a 40 mil thick, self-adhering, rubberized asphalt membrane with high density cross-laminated polyethylene reinforcement. Available in rolls 914 mm (36"), 457 mm (18"), 225 mm (9"), 152 mm (6") and 102 mm (4") wide. Durex® Flex-Seal Membrane requires the use of Durex® Flex-Seal Primer.

METAL LATH

- .1 Expanded, self-furring diamond mesh metal lath that are copper-alloy coated or galvanized, meeting the physical characteristics of Sentence 9.28.4.3. of Division B of the National Building Code (NBC) Canada and/or provincial and territorial building codes.
- .2 Self-furring, woven or welded wire lath, meeting the physical characteristics of Sentence 9.28.4.3. of Division B of the National Building Code (NBC) Canada.
- .3 Self-Furring Paperback lath having a D60 grade asphalt-saturated felt.
- .4 Austenitic Stainless steel lath
- .5 10 mm (3/8") Rib lath (for horizontal surfaces)
- .6 The corrosion protection of the metal lath shall conform to ASTM A 641, or ASTM A847.

FASTENERS FOR METAL LATH

- .1 Mechanical fasteners and Tie Wire for metal lath shall be non-corroding in compliance with CSA B 111 and/or ASTM C 1513. Fasteners shall be compatible with other metals. Aluminum fasteners shall not be used.
- .2 Fasteners shall be applied tight against the lath and shall penetrate into the framing members through the sheathing.
- .3 Attachment to Wood Framing:
 - .1 Nails for stucco lath shall be not less than 11gauge, 3.2 mm diam., minimum 25 mm (1") long, and with a head diameter of not less than 11.1 mm (7/16").
- .4 Attachment to Steel Framing:
 - .1 Screws for stucco lath shall be corrosion resistance, self-tapping, minimum #8, fully threaded type ATek-Wafer Head, minimum 19 mm (3/4") long, with a minimum 8 mm (5/16"), three thread penetration into studs. Meeting ASTM C646
- .5 Nails and screws for stucco lath of applications over wood or steel framing shall have metal retainer plates "Lath-Lock plates."
- .6 Attachment to Concrete Wall and Masonry
 - .1 Fasteners for concrete and masonry shall be minimum # 8 wafer head, fully threaded, Zamac Pin bolts, minimum 25 mm (1") length.
- .7 Tie Wire
 - .1 Tie wire shall be 18 gauge, galvanized and annealed low-carbon steel in compliance with ASTM A 641 with a minimum Class I Coating.

TRIM & ACCESSORIES

- .1 All metal trims and accessories, expansion and control joints, casing beads/stops, corner beads, weep and drip screeds shall be minimum 26-gauge, hot-dipped galvanized steel G60 coating, zinc alloy and shall be

compatible with other metallic surfaces. Trim and accessories shall have a minimum ground of 10 mm (3/8").

.2 PVC trims and accessories shall conform to ASTM D 1784, cell classification 13244C.

.3 Provide all trims and accessories as detailed in shop drawings and/or as required to complete the work in accordance with good trade practices and reference standards.

.4 PVC trims and accessories shall conform to ASTM D 1784, cell classification 13244C.

.5 Fasteners for trims accessories shall be placed in the crotch of the trim flanges.

STUCCO MATERIALS

.1 Water

.1 Water, if needed to be used within the stucco mix shall be potable, clean and free from any deleterious substances.

.2 Scratch Coat and Based Coat

.1 Durex® Dryplast Coarse and Durex® Dryplast Medium, pre-blended, fibre reinforced Portland cement and graded sand stucco mix, mixed on site in a ratio of 1 bag Durex® Dryplast Coarse or Medium to 5 liters of potable water.

.2 Durex® Uniplast Coarse and Durex® Uniplast Medium, a two-component polymer-modified cementitious base coat mixed with Acrybond S, a water-based 100% acrylic polymer additive in a ratio of 1 bag Durex® Uniplast to 5 liters of Durex® Acrybond S.

.3 Primer

.1 Durex® Brush Coat Primer, a water-based, 100% acrylic coating, colour-tinted to suit the colour of the final finish coat.

.4 Finish Coat

.1 Durex® Architectural Coatings, Classic Series, a 100% acrylic, water-based, multi-coloured, textured, protective coating. (Colour and texture to be selected)

.2 Durex® Architectural Coatings, Premium Series, high build, multi-coloured, protective and decorative coating consisting of coloured quartz aggregates and oversized mica flakes embedded in a clear 100% acrylic resin, textured, protective coating. (Colour and texture to be selected)

.3 Durex® Architectural Series, Artisan Series, a 100% acrylic, water-based, high-build, multi-coloured, textured with special patterns and artistic reliefs, protective coating. (Colour, texture and finish pattern to be selected)

.4 Durex® Architectural Series, Kolor Gard Series, a 100% acrylic, Fade Resistant Decorative High Build Protective Textured Coating for Accent & Bright Colours. (Colour, texture and finish pattern to be selected)

.5 Durex® Architectural Coatings, Elastomeric FX Series, a 100% acrylic, water-based, high-build, high flexibility, multi-coloured, textured, protective coating. (Colour and texture to be selected)

MIXING

.1 Perform all mixing under the conditions set forth in Article 1.9 "PROJECT/SITE CONDITIONS".

.2 Ensure materials, mixing and application equipment are clean and free of any contamination.

.3 Prepare and mix scratch coat, base coat, finish coat and primer in strict accordance with Durabond's written instructions to obtain a homogeneous consistency of mixture.

.4 Do not add any other additives, rapid binders, antifreeze, accelerators, fillers, surfactants to the mixture except those permitted by Durabond Products Limited.

.5 Do not use frozen, baked or lumpy materials.

.6 Size batches for complete use within 45 – 60 minutes of its mixing.

.7 Do not over-mix or use excessive mixing speed. Let mixed materials stand for a few minutes until they begin initial stiffening.

EQUIPMENT

.1 All mixing shall be carried out with a clean, rust-free paddle mixer that shall minimize air entrainment, powered by a power-drill at 400-500 rpm maximum speed.

.2 Metal trowels, hawks, utility knives, corner trowels and plastic floats

SEALANTS

.1 Sealant: a low modulus sealant, as recommended and approved by Durabond Products Ltd. Standard colour shall be selected by consultant.

PART IV – EXECUTION

EXAMINATION

.1 Examine framing, and surfaces to have lath and to receive the stucco system for defects that could adversely affect execution and quality of work.

.2 Report in writing to Contractor or Consultant any conditions and/or deviations that might adversely affect proper the stucco system installation.

.3 Ensure substrate tolerances are within 3.2 mm in 2,430 m (1/8" in 8'-0")

.4 Commencement of work shall indicate acceptance of substrate conditions.

.5 Ensure lath, furring, trims and accessories are securely and tightly fixed in place. and securely Ensure substrate surfaces, including each applied base coat, are dry, solid and sound, free of weak and powdery surfaces, free from ice, snow and frost, oil, grease, releasing agents and other deleterious materials detrimental to a positive bond.

.6 Ensure that flashing at all openings, roof-wall intersections, terminations and other areas as required, have been installed to divert water away from the stucco system.

PREPARATION

- .1 Prepare substrates to receive the stucco system as recommended in manufacturer's instructions.
- .2 Thoroughly clean and wash (existing) surfaces, including each applied base coat, (and including existing coated surfaces) by wire brushing or other approved methods to remove all dirt, dust, grease, oil, latent, efflorescence, loose coatings and any other deleterious materials.
- .3 Where necessary, mask all surrounding surfaces to provide neat, clean, true juncture lines with no over-spray of the coatings on surrounding surfaces.
- .4 Co-operate and co-ordinate with other trades penetrating or abutting to the work of this Trade. Ensure that components by other trades are in position before the application of the exterior insulation and finish system.

INSTALLATION OF SHEATHING PAPER

- .1 Code prescribed sheathing membrane shall be installed with all the joints lapped in such a way as to provide positive drainage and where all the joints occur over the framing.
- .2 Code-prescribed sheathing membrane shall be fastened to the framing with roofing nails or staples spaced not more than 150 mm (6") along the edges of the outer layer of the sheathing membrane.
- .3 Sheathing membrane based on paper-backed metal lath shall be installed in such a way as to provide continuous positive drainage.

INSTALLATION OF TRIM ACCESSORIES

- .1 Trim and accessories shall be installed in accordance with related reference standards, trim manufacturer, stucco system's Installation Manual requirements and good trade practices.
- .2 Casing beads/stops shall be installed prior to the installation of the lath while Corner beads shall be installed subsequent to the installation of the lath.
- .3 Trims shall be mechanically fastened to the substrate with fasteners placed within 50 mm (2") from the ends and spaced at no more than 300 mm (12") o.c.
- .4 Plaster stop trims shall be installed at all terminations and around all openings.
- .5 Weep screed shall be installed at the base of all walls situated above roofing and at grade level.

INSTALLATION OF EXPANSION AND CONTROL JOINTS

- .1 Provide and install expansion joints in alignment with building expansion joints.
- .2 Install expansion joints at all locations where dissimilar substrates meet.
- .3 Install expansion joints at all locations of maximum stress, in the direction as shown on drawings.
- .4 Install expansion joints at through wall penetrations. Expansion joints are to be installed so as to divide the wall surface into panels of not more than 13 m² (144 ft²) and not more than 3.0 m (10'-00") o.c. vertically. Neither dimension within the panel area should be greater than 2.5 times the other.
- .5 All horizontal joints shall be vented and located and spaced at intervals not greater than three stories.

- .6 Unless otherwise noted, provide all joints 12.7 mm (1/2") wide.

INSTALLATION OF LATH

- .1 Diamond Metal Lath
 - .1 Install and mechanically fasten the metal lath to the substrate, with the lath long dimension oriented horizontally at right angles to the structural framing. All metal lath vertical laps shall be staggered.
 - .2 Terminate the metal lath at expansion joints making sure the metal lath does not run continuously through joints.
 - .3 Fasten the metal lath to the framing members at a spacing not exceeding 178 mm (7") o.c vertically apart, and 406 mm (16") o.c. horizontally apart.
 - .4 Metal Lath shall be nested not less than 25 mm (1").
 - .5 Metal lath side laps, accessory side laps and/or end laps occurring between support shall be wire-tied at not more than 229 mm (9") o.c.
 - .6 Metal Lath overlaps shall not be places within 300 mm (12") of openings, corners, control joints or termination joints.
- .2 Self-furring Paper-backed wire lath
 - .1 Self-furring Paper-backed wire lath shall be installed in the same way as Diamond Metal Lath.
 - .2 Self-furring Paper-backed metal lath side laps shall lap lath over lath, and not paper to lath. Horizontal overlaps shall have the paper backing lapped in shingle style behind the lath to lath overlap.

APPLICATION

- .1 General:
 - .1 Supply experienced and qualified installers and applicators to carry out the work.
 - .2 Mix materials in accordance with manufacturer's instructions.
 - .3 Install the stucco system in strict accordance with the approved mock-up and manufacturer's printed instructions (and reviewed shop drawings).
- .2 Application of Scratch Coat
 - .1 Apply a scratch coat on trims and accessories that have been securely fastened in place.
 - .2 Apply the scratch coat firmly over the lath. The scratch coat shall not be less than 6 mm (1/4") thick. Apply uniformly and forcefully to fill all voids to ensure full bond with the substrate and to sufficiently cover and key the reinforcing lath.
 - .3 Rake the surface of the newly applied scratch coat with a plaster rake to form fairly uniform indentations which will act as a key surface for the base coat.
 - .4 Allow a minimum of 3 days for curing and drying.
- .3 Application of Base Coat

.1 Ensure that the surface of the scratch coat is dry and free of loose materials, and dirt and that detail work has been completed.

.2 In hot, dry weather, if the scratch coat surface is exceptionally dry, lightly dampen the surface with a fog mist of clean potable water. Do not over-saturate with water, as it will impair the bonding of the base coat.

.3 Trowel apply a layer of base coat over the scratch coat surface, not less than 3 mm, applying sufficient pressure in the trowelling process to ensure full contact with the scratch coat surface.

.4 Use a straight edge tool to darby the surface and bring it to a straight, even and true surface.

.5 Total thickness of both the scratch coats shall not be less than 7 mm (1/8").

.6 When the base coat has taken initial set, use a wood or sponge float and work the surface with light circular motion to remove all high points and to fill low points.

.7 Final surface shall be smooth, straight and true to a tolerance of not more than 3.2 mm in 3 m (1/8" in 10'-0"). Surface shall be free of trowel marks, irregularities and visible mesh pattern.

.8 Allow a minimum of 3 days for curing and drying.

.4 Application of Finish Coat Primer

.1 Evenly apply the primer throughout with a high pile roller at a rate of 2.8 m²/l (600 ft²/pail). The substrate shall not be visible through the applied primer.

.2 Avoid excessive build-up in any one area.

.3 If required, re-coat when the first coat is dry to the touch, but in any event not earlier than 2 hours after initial setting.

.4 Allow minimum 4 hours for curing prior to application of finish coat.

.5 Application of Finish Coat

.1 Apply the stucco system's selected finish coat, within 3 days after application of the system's selected primer. Longer periods may be scheduled between operations provided that the primed surface is kept clean and in good condition.

.2 Apply the selected finish coat in strict accordance with manufacturer's printed instructions for the Selected finish.

.3 Apply the finish coat in such a way as to match the colour and texture of the approved site mock-up.

.4 Do not apply the finish coat onto surfaces that are intended to be caulked.

SEALANTS

.1 Seal and caulk all joints in the stucco system with the system's specified elastomeric sealant that shall be applied over a compatible closed-cell foam backer rod or bond breaker tape.

.2 Seal and caulk all expansion joints between the stucco system and dissimilar abutting building components.

.3 Apply sealant and/or sealant primer in strict accordance with the sealant manufacturers printed instructions.

SPECIAL CLEANING

.1 Clean off all surfaces and work area of foreign materials resulting from material installation and leave work in clean condition.

.2 Entirely reinstate at this Trade's own expense, any surface not to be coated, but soiled and attributable to this Trade due to spillage, mixing of material or any other cause.

PROTECTION

.1 Protect the installed Stucco Lite system from damage during construction.

.2 Provide protection of installed materials from precipitation, freezing, excessive heat, dust, and dirt during installation and curing of the system.

.3 Provide protection to adjacent materials that could be damaged by the system's installation.

.4 Post appropriate warning signs while work is in progress and during curing period.

.5 Clean off all surfaces and work area of foreign materials resulting from material installation and leave work in clean condition.

REFERENCES

.1 American Society for Testing Materials

.1 ASTM A641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire

.2 ASTM A653 Specification for Sheet Steel Zinc Coated (Galvanized) by the Hot-dip Process, Commercial Quality.

.3 ASTM B117 Standard Practice for Operating Salt Spray (Fog) Apparatus

.4 ASTM A580/A580M Specification for Stainless Steel Wire

.5 ASTM C847 Standard Specification for Metal Lath

.6 ASTM C926 Standard Specification for Application of Portland Cement- Based Plaster

.7 ASTM C933 Standard Specification for Welded Wire Lath

.8 ASTM C954 Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.84 mm ((0.033")) to 2.84 mm (0.112") in thickness

.9 ASTM C1002 Standard Specification for Steel Self-Piercing Tapping Screws for Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.

.10 ASTM C1032 Standard Specification for Woven Wire Plaster Base

SECTION 07240: EXTERIOR INSULATION AND FINISH SYSTEM

PETSMART Store No. XXXX

.11	ASTM C1063	Standard Specification for Installation of Lathing and Plaster	Standard Specification for Furring for Portland Cement	.29	ASTM G154	Standard Practice for Operating Fluorescent Ultraviolet Exposure of Nonmetallic	Standard Practice for Operating (UV) Lamp Apparatus for Materials.
.12	ASTM C1177/C1177M	Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing.		.30	ASTM G155-05a	Standard Practice for Operating Xenon Arc Light Apparatus	Standard Practice for Operating for Exposure of Non-Metallic Materials.
.13	ASTM C1185	Standard Specification for Flat Fiber-Cement Sheets		.2	Canadian Standards Organization (CSA)		
.14	ASTM C1280	Standard Specification for Application of Exterior as Sheathing	Standard Specification for Gypsum Panel Products for Use	.1	CSA A3000	Cementitious materials compendium	
.15	ASTM C1325	Standard Specification for Fiber-Mat Reinforced Cementitious Backer Units		.2	CSA B111 Wire Nails, Spikes and Staples		
.16	ASTM C1338	Standard Test Method for Determining the Fungi Resistance of Insulation Materials and Facings.	Standard Test Method for Resistance of	.3	CSA O86 Engineering Design in Wood.		
.17	ASTM C1382	Standard Test Method for Determining Tensile Adhesion Used in Exterior Insulation and Finish Systems (EIFS) Joints.	Standard Test Method for Properties of Sealants When and Finish Systems (EIFS)	.4	CSA O325 Construction Sheathing.		
.18	ASTM C1481	Standard Guide for Use of Joint Sealants with Exterior Systems (EIFS).	Standard Guide for Use of Joint Insulation and Finish	.5	CSA O121 Douglas Fir Plywood.		
.19	ASTM C1513	Standard Specification for Steel Tapping Screws for Cold-Connections	Standard Specification for Steel formed Steel Framing	.6	CSA O151 Canadian Softwood Plywood.		
.20	ASTM C1861	Standard Specification for Lathing and Furring Accessories, Interior and Exterior Portland Cement-	Standard Specification for and Fasteners, for Based Plaster.	.7	CSA O153 Poplar Plywood.		
.21	ASTM D226	Standard Specification for Asphalt-Saturated Organiz Felt Waterproofing	Standard Specification for Used in Roofing and	.3	Canadian General Standard Board (CGSB)		
.22	ASTM D5420	Standard Test Method for Impact Resistance of Flat, Rigid Striker Impacted by Falling	Standard Test Method for Impact Plastic Specimen by Means of Weight (Gardner Impact).	.1	CAN2-51.32	Sheathing Membrane, Breather Type	
.23	ASTM E84	Standard Test Method for Surface Burning Characteristics	Standard Test Method for of Building Materials.	.4	International Organization for Standardization (ISO)		
.24	ASTM E96/E96M	Standard Test Methods for Water Vapor Transmission of	Standard Test Methods for Water Materials.	.1	ISO 7892 Vertical Building Elements – Impact Resistance Tests – Impact Bodies and General Test Procedures		
.25	ASTM E330	Standard Test Method for Structural Performance of Skylights and Curtain Walls by Difference.	Standard Test Method for Exterior Windows, Doors, Uniform Static Air Pressure	.2	ISO 15148 Hygrothermal performance of building materials and products - Determination of water absorption coefficient by partial immersion.		
.26	ASTM E331	Standard Test Method for Water Penetration of Exterior Curtain Walls by Uniform	Standard Test Method for Water Windows, Skylights, Doors, and Static Air Pressure Difference.	.5	ULC (Underwriters Laboratories of Canada)		
.27	ASTM E1131	Standard Test Method for Compositional Analysis by	Standard Test Method for Thermogravimetry.	.1	CAN/ULC-S114 Standard Method of Test for Determination of Non-Combustibility in Building Materials.		
.28	ASTM E1252	Standard Practice for Obtaining Infrared Spectra for Qualitative Analysis.	Standard Practice for General Infrared Spectra for Qualitative				

END OF SECTION

END OF SECTION

This Page Intentionally Left Blank.