

GUIDE SPECIFICATION FOR

**PRESWITT RAINSCREEN EIF SYSTEM
(EPS INSULATION)**

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GUIDE SPECIFICATION

Division 7
THERMAL AND MOISTURE PROTECTION
Section 07240

EXTERIOR INSULATION AND FINISH SYSTEM RAINSCREEN SYSTEM

PART 1 GENERAL**1.1 DESCRIPTION**

- .1 *Work included:* The work described in this section includes the supply and installation of the Exterior Insulation and Finish Rainscreen System, as indicated on the drawings and as specified.

- .2 *Related Work Under Other Sections:*

STEEL STUDS AND FURRING:

Section _____

EXTERIOR GYPSUM SHEATING BOARD:

Section: _____

SEALANTS:

Section: _____

(See Note 3.)

1.2 QUALIFICATIONS

- .1 The system shall be installed by a contractor approved and certified by the system manufacturer. Certification must be in force at the time the project is bid and contracted for.

1.3 SUBMITTALS

- .1 Submit to the architect, for approval, duplicate samples of finish coating of color and texture selected by the architect. Samples shall be made by applicator utilizing tools, materials, and techniques proposed for installation.

- .2 Obtain architect's approval of samples before ordering materials and proceeding with work.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- .1 Store packaged materials in original containers with manufacturer's seals and labels intact, with each production lot identified by batch number. All lots with same batch number shall be stored together.
- .2 Prevent damage to materials during handling and storage. Keep materials under cover and free from dampness.

- .3 Store products in a cool dry place out of direct sunlight, protected from the elements and from damage.

- .4 System materials shall be stored at a temperature of not less than 5 °C (40°F).

1.5 JOB CONDITIONS

- .1 Ambient temperature must be no less than 5 °C (40°F) during installation and until the adhesive and coatings are dry. (Minimum 24 hours).

- .2 Construct proper free standing scaffolds 460mm (18") from the wall surface to allow continuous uninterrupted application.

1.6 PROTECTION

- .1 Protect adjacent areas from damage resulting from the installation of the system. All finish work shall be protected at the end of the day or completion of a section.
- .2 Sections of the work must be protected from adverse weather conditions during the application and until the coatings are dry.

PART 2 PRODUCTS**2.1 MATERIALS**

- .1 *Exterior Insulation and Finish Rainscreen System:* The system shall be as manufactured and supplied by Preswitt Manufacturing Ltd., and comprised of weather resistant air barrier, insulation board, adhesive compound, reinforcing fabric and finish coating.
- .2 *Air Barrier:* Shall be Preswitt Flexcoat or Preswitt Basecoat applied over an approved substrate. The selected coat shall be reinforced with reinforcing fabric.
- .3 *Insulation Boards:* Shall be aged, expanded polystyrene insulation manufactured from Type A beads conforming to CGSB 51-GP-20M Type 1 (ASTM C-578) density 16 Kg/m (1.0 lb).

per cubic foot); flame spread of less than 25 when tested in accordance with ASTM E-84; top edge bevelled all other edges square; board size as recommended by the manufacturer.

Thickness: _____
(Specify as required for thermal resistance)

- .4 *Adhesive Compound*: Shall be Preswitt Adhesive Compound.
- .5 *Reinforcing Fabric*: Shall be a balanced, openweave glassfibre fabric treated for compatibility with the system materials. Fabric shall be supplied by Preswitt Manufacturing Ltd.
- .6 *Heavy Duty Reinforcing Fabric*: Shall be balanced, openweave glassfibre fabric treated for compatibility with the system materials and used in high impact areas only. Fabric shall be supplied by Preswitt Manufacturing Ltd.
- .7 *Finish Coating*: Shall be Preswitt Quality Finish. Color shall be as selected by the architect from the manufacturer's standard color range; custom colors are available on request.

Color _____

Texture _____
(Select fine, medium or coarse texture from Manufacturer's standard texture chart).
- .8 Mechanical fasteners if required, shall be as recommended by Preswitt Manufacturing Ltd.
- .9 *Portland Cement*: Type 10 Normal Portland cement conforming to CSA A5-1977 or Type 1,1-11, or 11 meeting ASTM C150.
- .10 *Sealant*: Shall be Dow Corning 790/795 Silicone Building Sealant.

2.2 MIXING AND PREPARATION

- .1 *Adhesive and Basecoat*: Drill-mix adhesive compound with Portland cement in a ratio of 1:1 by weight.
- .2 *Flexcoat*: Drill-mix with Portland cement in a ratio of 1:1 by weight.
- .3 *Quality Finish*: Drill-mix the material before applying to the wall surface.

PART 3 EXECUTION

3.1 INSPECTION

- .1 Before commencing ensure that environmental and site conditions are suitable for the installation of the system.
- .2 All areas should be even and free from surface irregularities.
- .3 The substrate shall be a type approved by Preswitt Manufacturing Ltd.
- .4 Where exterior gypsum sheathing is the specified substrate, ensure that it meets the required standard, is clean, dry, properly fastened and shows no sign of deterioration or defects.
- .5 Wall surfaces shall be sound and free of ice and frost.
- .6 Ensure that all surfaces are free from loose particles, foreign materials, form oil and traces of any other releasing agents.

Any discrepancies shall be reported to the architect or general contractor, and rectified before the work proceeds. Commencement of work indicates acceptance of conditions.

3.2 INSTALLATION

- .1 Trowel apply the selected reinforced air barrier over the approved substrate and use peel and stick strips at openings to ensure air tightness.
- .2 Install EPS panel starter strips carefully levelled to ensure proper drainage. Apply sealant at base of drainage channel sealing junction of starter strip and air barrier.

- .3 Apply the specified adhesive mixture to the insulation board, in vertical ribbon pattern as per manufacturer's instructions.

- .4 Press and secure the insulation board onto the wall surface. Ensure that the adhesive has solid contact with the substrate. Boards shall be placed from a level starter panel strips with vertical joints staggered and all joints butted tightly. At corners, alternate boards on adjacent planes, so that they interlock.

Gaps in the board joints must be filled with slivers of polystyrene, and uneven edges shall be sanded off; in neither case must the adhesive mixture be used to fill the gaps, or level out the uneven edges. Board joints shall be flush and the insulated wall surface left flat and even.

- .5 Evenly apply the specified basecoat, 2mm (1/12") thick, to the exposed surface of the insulation board.
- .6 Embed the standard reinforcing fabric in the wet basecoat, lapping the joints a minimum of 60mm (2 1/2"); trowel smooth leaving no mesh visible.

For high impact areas heavy duty reinforcing fabric shall be embedded in a basecoat layer in a similar manner; the fabric shall be butt-jointed, with no laps, and allowed to dry for a least 24 hours. This shall be done prior to installing the standard fabric reinforced basecoat. Both reinforced basecoats are necessary for high impact areas.

The surface to receive the finish material shall be flat and even in all directions with no high points especially at mesh laps.

- .7 Apply finish coating with a steel trowel and obtain texture by use of a plastic trowel. Coverage shall be in accordance with the manufacturer's instructions.
- .8 Installation of the Exterior Insulation and Finish System shall be done in strict accordance with the contract documents, and the manufacturer's written instructions. The finished work shall match approved samples, be uniform in color, texture and be free from defects detrimental to appearance and performance.

SPECIFICATION NOTES

1. This guide specification is basic and must be adapted to suit the requirements of individual projects. Consult the manufacturer for specific recommendations.
2. This guide specification is prepared in accordance with Construction Specifications three part section format and should be included under Division 7 - Thermal and Moisture Protection as Section 07240, in accordance with CSC/CSI Master Format for specifications.
3. Insert list of related work specified in other Divisions, such as steel studs, exterior gypsum sheathing, sealants, flashings, etc. Sealant compounds should be compatible with Preswitt Wall System components. Insert also the appropriate section number.
4. The architect will be responsible for the building envelope design including the preparation of details showing how Preswitt Exterior Rainscreen Insulation System will interface with other exterior building components such as windows, doors and flashings.
5. The owner will engage a qualified professional engineer to determine, and prepare drawings of, the compartment layout with sized vent openings required for air-pressure equalization of the building envelope design.
6. An independent building envelope inspection agency, acceptable to the local building code authority, shall be retained by the owner to approve the building envelope design including details and use of materials. This agency shall provide site supervision to ensure that the system is installed according to the manufacturer's application instructions.