

SPECIFICATION

Unifix System Interior partition system on PermaBase cement boards

This document is intended for use by professionals to assist in developing specific projects.
Final specifications must be approved by the owner's representative.

This document replaces any specifications previously issued.
January 2007

PART 1 GENERAL

1.1 Work Included

Provide all labour, materials and equipment necessary to install the UNIFIX system.

1.2 Related work specified elsewhere

Metal framing Section 05400

1.3 Description

The system consists of PermaBase cement boards fastened to the wall structure and finished with acrylic base coat, glass fibre mesh, trims, primer and acrylic finish coat.

1.4 Conceptual requirements

1. All work undertaken must comply with the current codes and norms, the manufacturer's requirements and construction best practices.
2. The wall structure shall not allow deflection higher than L\360.
3. Maximum stud spacing shall be 400mm (16").
4. Control joints that will allow for movement will be put in the following places :
 - a) At all floor levels;
 - b) At any structural change;
 - c) At control joints in the substrate;
 - d) At expansion joints of the building;
 - e) At the junction of two different materials;
 - f) At inside corners and major openings;
 - g) Anywhere specified on the drawings;
 - h) At a maximal distance of 30 ft (10m);

1.5 Quality Assurance

1. The applicator shall have a sufficient amount of material and enough qualified labour at his disposal to install the system.
2. The applicator must follow the directions for use given by the manufacturer for all system component's installation.

1.6 Delivery, Storage and Handling

1. All materials supplied by ADEX Systems Inc. shall be delivered in their original packages with intact and legible labels.
2. All materials supplied by ADEX Systems Inc. shall be stored in a cool dry location, out of the sunlight, protected from weather and other damage and at temperatures above 41°F (5°C).
3. Materials that are suspected of having been exposed to freezing must not be used.
4. Minimise the exposure of containers to temperatures exceeding 90° F (32° C).
5. Store boards on a smooth horizontal surface .
6. Boards shall be handled according to manufacturer's recommendation in order to prevent damage or loss of performance of the boards.

1.7 Job Conditions

1. Air and substrate temperature shall be at least 41°F (5°C) during installation.
2. When installing in temperatures below 41°F (5°C), tarping, heating and ventilation shall be provided.

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3. Fasteners
Shall be PermaBase Screw from UNIFIX inc., self-tapping, wafer-head screw with the following minimal requirements:
 - a) #8-16, 1-1/4" or 1-5/8";
 - b) Head diameter: 11.5 mm (0.45");
 - c) Without ribs under head;
 - d) Zinc plated with chemical coating
 - e) Salt Spray resistance (ASTM B117): 1000 hours
 - f) SO₂ resistance (Kesternich test) : 15 cycles.
 - g) Heat resistance (JIS K54007.1) : 250° C / 7hrs
4. PVC mouldings (if necessary)
Shall meet ASTM-D1784 standards for exterior use.
(See NOVATRIM shapes in ADEX and UNIFIX CATALOGUES).
5. Acrylic base coat
Shall be a 100% acrylic based, asbestos-free product, made by ADEX Systems Inc., such as ACRYJOINT.
6. Glazing mortar
 - a) Shall be a 100% acrylic composite, ready to use, such as SURFAGLAZE, made by ADEX Systems Inc.;
 - b) Shall meet the following standards:
 1. Humidity resistance (UEATC article 3.3.1.1) : ≥ 2 hrs;
 2. Abrasion resistance (FTM 141 A-6191 : no deleterious effect:
 3. Mildew resistance (Mil. Std 810 method 508.4): 28 hrs;
 4. Adhesive strength: ≥ 0.8 Mpa.
7. Glass Fibre Mesh
 - a) Shall be alkali resistant according to ANSI 99-A-2001.
 - b) Shall be sold by ADEX Systems or its authorised distributors.
 - c) Shall meet ASTM E-2098, ASTM D-5035 standards.
 - d) Shall have different widths according to specific needs:
 1. UNITAPE: 75mm (3") wide, self-adhesive
 2. UNIROLL 96 cm (38") wide
8. Primer
Shall be an acrylic and silica mix that can be applied by roller, such as ACRYROLL, manufactured by ADEX Systems Inc.
9. Finish coat
 - a) Shall be factory-mixed, 100% acrylic based, ready for use and shall contain integral colour and texture.
 - b) The texture shall be [see ADEX and UNIFIX CATALOGUES].

2.3 Other materials

1. Cement
Shall be of type GU, meet CSA A-3001 standard, be fresh and free of lumps.
2. Water
Shall be limpid, potable and free of sediment.

2.4 Tests

1. Tests performed by an independent laboratory on the specified materials can be requested
2. Properties shall meet or exceed the following values when tested by methods listed:
 1. Accelerated weathering resistance :
ASTM D822 (exposed 2500 hours) : no deleterious effect

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| 2. Salt spray resistance : | | |
| ASTM-B117 (exposed 300 hrs) : | | no deleterious effect |
| 3. Freeze-thaw resistance : | | |
| ASTM C-666 (50 cycles) : | | no cracks, delamination or crazing. |
| 4. Mildew and fungus resistance : | | |
| Mil.Std.810 E : | | no mildew or fungal growth. |
| 5. Water permeability : | | |
| UEAtc "Directives for E.I.F.S.", article 3.3.1.1. : | ≥ 2 hours. | |
| 6. Water Absorption : | | |
| UEAtc "Directives for E.I.F.S.", article 3.3.1.2. : | ≤ 20%. | |
| 7. Bond Test : | | |
| UEAtc "Directives for E.I.F.S.", article 3.3.2.1. : | | |
| after 2 hours drying : | | ≥ 100 kPa, |
| after 7 days drying : | | ≥ 300 kPa. |
| 8. Water vapour transmission: | | |
| ASTM E96-95 : | | ≥ 170 ng/Pa.s.m ² |

PART 3 EXECUTION

3.1 Inspection

1. The wall frame shall be examined for soundness, solidity, and to ensure that there are no voids or projections.
2. Maximum distance between furring shall be 400 mm (16") on vertical surfaces, 300 mm (12") on ceilings and 200mm (8") when PermaBase Flex is used. Furring shall be lined with a maximum deviation of 3mm in 2400mm (1/8" in 8ft).
3. The architect and general contractor shall be advised of any discrepancies and work shall not proceed until unsatisfactory conditions are corrected.

3.2 Mixing

ACRYJOINT Base coat:

- a) In a clean container ACRYJOINT and GU cement shall be mixed to a final weight ratio of one-to-one.
- b) After 5 minutes have been allowed for initial set, the mixture shall be stirred again.
- c) No additive (such as rapid binders, anti-freeze, accelerators or others) shall be added.

3.3 Installation

1. Do not install any wet board.
2. Apply construction glue to the studs.
3. Position boards horizontally, perpendicularly to the furring. The rough surface and tapered edges shall face outwards. All edges shall be fully supported by furring and/or studs. Boards shall fit tight and true with adjacent boards, and no space shall show between them. Avoid jointing boards at corners of openings. Vertical joints shall be offset a minimum of 300 mm (12") from those in adjacent panels.
4. Each and every board or piece of board shall straddle a minimum of 3 furring.
5. Start screwing boards in the middle moving towards edges.
6. Fasten cement boards to furring with appropriate screws at every 200 mm (8"), 150 mm (6") for ceilings.
7. Screws shall be installed between 10 and 15 mm (3/8" and 5/8") from edges.
8. Screw heads shall be flush with the surface of board; they must not damage the fibreglass mesh facing. Ensure that the boards are well attached and that they are in continuous contact with the studs.

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9. Remove from the board face any label or foreign material that could inhibit adhesion of the base coat.
10. Attach NOVATRIM mouldings where required, using stainless steel tacks every 200 mm (8"). Ensure that joints are well adjusted and aligned.
11. Apply self adhesive UNITAPE on all board joints.
12. Cover all UNITAPE, screws and NOVATRIM edges with ACRYJOINT mixture, making sure that all NOVATRIM holes are properly filled.
13. A 9 1/2" x 12" (240 mm x 300 mm) piece of glass fibre mesh shall be applied in the Base coat at a 45° angle at the corners of every opening.
14. Allow 24 hours minimum for drying.
15. The ACRYJOINT mixture shall be applied to the surface to a thickness of 1/16" (1,6 mm). The UNIROLL mesh shall be embedded in it. The surface shall be smoothed until the mesh is fully embedded.
16. The mesh shall be lapped a minimum of 2 1/2" (63 mm) on all sides.
17. The mesh shall cover all NOVATRIM wings.
18. A second coat of the ACRYJOINT mixture may be required if, after drying, there are imperfections or the mesh is not completely embedded.
19. A period of 24 hours shall elapse before installing the finish coat.

[The following section describes the procedure when paint is used to finish the wall surface]

1. Apply a 1 mm (1/32") coat of SURFAGLAZE mortar on the wall surface
 2. Let dry thoroughly between each SURFAGLAZE coat.
 3. Apply as many coats as needed to obtain a smooth, paintable surface.
 4. Light sanding may be useful between each coat.
 5. Painting shall be done with 100% acrylic paint, as ACRYPAINT. Any other paint shall be approved by its manufacturer.
20. A layer of ACRYROLL primer of the same colour as the finish coat shall be applied evenly with a roller before installing the finish coat.
 21. Primer must touch dry before applying the finish coat.
 22. A tight coat of Finish, texture [see ADEX and UNIFIX CATALOGUES] shall be applied with a trowel, continuously, to a thickness not greater than the largest aggregate. A wet edge shall be maintained. Levelling and texturing shall take place in one operation to give it a uniform appearance.
 23. Finish coat shall not be applied on locations where caulking will be applied.

3.4 Clean-Up

1. Materials left over by the applicator shall be removed from the job site.
2. The applicator shall clean adjacent materials and surfaces.

END OF SECTION

This information represents the recommendations on the date of this document for the installation of the UNIFIX System. It is provided in good faith, only for indicative purposes. The information is subject to change without notice. ADEX Systems Inc. shall not be held responsible, whether formally or implicitly, for any damage, defect or deficiency resulting in mistakes, errors or omissions in the structure, engineering or the contractor's labour.