PERM-FLEX (JC) ASSEMBLY
DIRECT APPLICATION TO CEMENT BOARD SUBSTRATES
MANUFACTURERS SPECIFICATION / SECTION 09960

PART 1 - GENERAL

1.01 DESCRIPTION

A. Provide all labor, materials and equipment necessary to install the "PERM-FLEX JC" Coating Assembly from STUC-O-FLEX. The assembly consists of Elastomeric Joint Compound, Fiberglass Reinforcing Detail Mesh, Prime Seal and Stuc-O-Flex finish applied to cement board substrates.

B. Related work specified elsewhere:
1. Sealant section 07900.

C. Terms and Definitions:

1. ELASTOMERIC JOINT COMPOUND Acrylic polymer based material which functions as a water resistant bridging compound to flush, smooth and reinforce seams, butt joints and corners.

2. STUC-O-FLEX REINFORCING FIBERGLASS MESH Detail Mesh, 6" wide rolls of a balanced open weave fiberglass mesh specially treated for compatibility, as supplied by STUC-O-FLEX INTERNATIONAL (optional, except for inside and outside corners).

3. PRIME SEAL Acrylic based stain blocking primer, helps to protect substrate from moisture during the application of materials and provides for uniform substrate porosity which could discolor finish coat.

4. STUC-O-FLEX finish coat as manufactured by STUC-O-FLEX INTERNATIONAL, factory premixed, acrylic based, color integrated, textured finish for use with PERM-FLEX system. Numerous textures can be achieved using a variety of application methods. Spray or trowel applied - Sand finish, skip trowel, knock down, lace, etc. Provided in 20 standard colors. Special colors upon request, see STUC-O-FLEX standard color chart for details.

5. Water shall be clean and potable in clean containers without any residue or foreign materials.

6. Sealant system (CAULKING), Shall be of appropriate quality and design to prevent water intrusion behind the coatings. Consult manufacturers for specific details and specification.

7. Accessories, Casing & corner beads, trim pieces, expansion & control joints, etc., used in conjunction with design system as required by specific project conditions (by design professional).

1.02 QUALITY ASSURANCE

Optional but Encouraged - "WaterWay Rainscreen & Ventilation Mats" create space between your building and the elements. They also contribute to air circulation and

ventilation when properly designed. Water drainage and increased air flow will enhance drying and in turn reduce the potential damage resulting from water penetration. A Polymer core of fused, entangled filaments in varying thicknesses from a nominal ¼ inch to ¾ inch bonded to a moisture resistant filter fabric on the outer surface.
http://www.stucoflex.com/rainscreen_drainage_mats.html

A. Applicator Requirements

1. Applicator shall be licensed, insured and competent to accurately install the products consistent with construction documents and specifications. Manufacturer is not responsible for application.

B. Approvals

1. The system shall be recognized for the intended use by applicable building codes.

C. Design Consideration

1. Deflection of the substrate system shall not exceed l/240.
2. Minimum slope shall be 4 : 12 pitch.
3. Expansion Joint Requirements:
    a. Where building or substrate expansion joints occur.
    b. At floor lines in wood frame construction.
    c. Where dissimilar substrates occur.
    d. Locations where the system abuts alternate building materials.
    e. As determined by design professional
4. Stuc-O-Flex coating material terminations to windows, doors, air conditioning units, electrical boxes, etc. shall provide adequate space for proper waterproof transition. Under no circumstances shall Stuc-O-Flex be responsible for integrity or design.
5. Stuc-O-Flex coatings shall terminate at a minimum 2" inches above grade.
6. Sealant system shall be compatible with Stuc-O-Flex and adjacent building product. Consult sealant manufacturers for recommendations
7. All substrate sheathing systems should incorporate code compliant weather resistive barrier and a mechanism for water drainage.
8. Substrate systems shall have no surface irregularities greater than ¼ in 8 feet.

D. Framing (general guidelines)

1. Maximum spacing shall be 24" O.C. when using 1/4" cementitous substrate over nominal 1/2" sheathing or nominal 1/2" cementitous substrate over open framing.
2. Blocking shall be required in some cases to ensure all sheathing butt joints (edges) fall on a structural member preventing movement of substrate sheathing. (Substrate integrity is important to finial appearance of completed walls)

E. Substrate Sheathing (general guidelines)

1. Moisture content of sheathing shall not exceed 19% during installation and remain so throughout PERM-FLEX assembly application.
2. Install substrate sheathing with a 1 /32" to 1/16" gap between pieces to allow for expansion and contraction.
3. Sheathing butt joints shall be parallel and fastened to studs 6" O.C. with fasteners no closer than 3/8" from edge.

Note: All Stuc-O-Flex transitions to adjacent building materials shall be professionally designed and executed to prevent water intrusion behind the coating materials. The integrity of this water tight detail must be maintained. Stuc-O-Flex International, Inc. is not responsible for design.

1.03 SUBMITTALS

A. Samples:
1. The applicator shall, before the project commences, provide the owner or architect, a sample of suitable size of each color and texture as specified for the project for purposes of obtaining approvals.
2. Each sample shall be prepared using the same tools and techniques as required for the actual application.
3. An approved sample shall be available and maintained at the job site.

1.04. PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver all material supplied by the manufacturer in original, unopened packages with legible manufacturer's identification and labels intact.

B. Store all products supplied by STUC-O-FLEX in a cool dry place, out of direct sunlight, protected from weather and other damage. In addition, the materials shall be stored in tightly sealed containers at a temperature of not less than 40°F at all times.

1.05 JOB CONDITIONS

A. Weather and Environmental Conditions
1. Application of Stuc-O-Flex Coatings shall not take place during inclement weather unless appropriate protection is employed.
2. Stuc-O-Base Coat and Stuc-O-Flex Elastomeric Finish shall be protected against freezing temperatures, rain, or water splash for a period of at least 48 hours. The job should be tented and a heat source provided if there is a projected drop in the temperature below 40°F during the first 24 hours after application of Base coat or Finish coat.

1.06 COORDINATION AND SCHEDULING

A. The work in this section requires close coordination with related sections and trades.

B. The tops of all walls must immediately be protected to prevent water infiltration behind the exterior wall assembly. The cap flashing should be installed immediately after the Finish coat has been cured.

C. Sealant and waterproofing materials shall be installed in a timely manner as to prevent water intrusion behind the Stuc-O-Flex coatings.

1.07 MAINTENANCE

A. Sealant and other components of the structure must be inspected periodically to confirm performance as originally installed. Corrections shall be made at once.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

All Stuc-O-Flex Coating products shall be obtained from STUC-O-FLEX INTERNATIONAL, INC., as manufacturer, or its authorized supplier or distributor. Contact:

Stuc-O-Flex International, Inc.
17639 NE 67th Court
Redmond, WA 98052
800-305-1045
info@stucoflex.com www.stucoflex.com

MATERIALS

A. ELASTOMERIC JOINT COMPOUND Acrylic polymer based material which functions as a water resistant bridging compound to flush and smooth out uneven seams and butt joints.

B. STUC-O-FLEX REINFORCING FIBERGLASS MESH Detail Mesh, 6" wide rolls of a balanced open weave fiberglass mesh specially treated for compatibility, as supplied by STUC-O-FLEX INTERNATIONAL (optional, except for inside and outside corners).

C. PRIME SEAL Acrylic based stain blocking primer, protects substrate from moisture and prevents bleed through which would discolor finish coat.

D. STUC-O-FLEX finish coat as manufactured by STUC-O-FLEX INTERNATIONAL, factory premixed, acrylic based, color integrated, textured finish for use with PERM-FLEX system. Numerous textures can be achieved using a variety of application methods. Spray applied or hawk & trowel - Sand finish, skip trowel, knock down, lace, etc. Provided in 20 standard colors. Special colors upon request, see STUC-O-FLEX standard color chart for details.

E. Water shall be clean and potable in clean containers without any residue or foreign materials.

F. Sealant system (CAULKING), Shall be of appropriate quality and design to prevent water intrusion behind the coatings. Consult manufacturers for specific details and specification.

G. Accessories, Casing & corner beads, trim pieces, expansion & control joints, etc., used in conjunction with designated wall system as required by specific project conditions

PROPERTIES

The Stuc-O-Flex coatings comply with following test standards:

TEST	METHOD	RESULT
ELONGATION % (FINISH)		105 Percent
WATER VAPOR TRANSMISSION	ASTM-E96	14 GRAINS PER HOUR / SQ. FT. (AVERAGE)
SALT SPRAY RESISTANCE	B-117	300 HOURS NO DELETERIOUS EFFECTS
ACCELERATED WEATHERING	G-23-81	2000 HOURS NO DELETERIOUS EFFECTS
ABSORPTION FREEZE THAW	60 CYCLES	NO CRACKING, CHECKING
TENSILE BOND	ASTM C-297	127.9 PSI
WATER PENETRATION TEST	ASTM-E-331	NO WATER PENETRATION OCCURRED ON SUBSTRATE
WATER RESISTANCE TEST	ASTM D-2247	NO CRACKING, BLISTERING, PEELING OR COMPROMISE

MILDEW / FUNGUS RESISTANCE	810 B	NO MOLD OR MILDEW GROWTH DURING TEST
WIND DRIVEN RAIN		NO DELAMINATION, NO WATER INTRUSION
FIRE TESTING TUNNEL TEST	ASTM E-84	FLAME SPREAD < 25 SMOKE DEVELOPED < 450 CLASS "A" FIRE RATED

PART 3 - EXECUTION

3.01 INSPECTION

A. Prior to proceeding, carefully inspect preparatory and installed work of other trades and verify that such work is correct and completed to the point where Stuc-O-Flex product installation may properly proceed.

B. Substrate shall be dry, sound and free of release agents (silicones, oils, etc.), paint and other residue or coatings.

C. The substrate shall have no planar irregularities greater than 1/4" in 8 feet.

D. Notifications - The General Contractor and the Architect shall be advised of any discrepancies. Work shall not proceed until all unsatisfactory conditions are corrected and the substrate is acceptable, clean and free of any contaminants, including completion of all appropriate flashing and other waterproofing details.

INSTALLATION

A. ACCESSORIES: expansion joints, corner & casing bead, L or J channel where required, shall be installed as the first step in conjunction with or directly after the sheathing is set.

1. Accessories shall be installed in accordance with manufacturer's recommendations, although fastening schedule shall be a maximum of 8" O.C.
2. Installation at this time insures accessories will be fully embedded in Joint Compound and fiberglass reinforcing mesh, providing a structurally sound, aesthetically pleasing detail.

B. ELASTOMERIC JOINT COMPOUND & FIBERGLASS REINFORCING MESH: Using a stainless steel trowel or sheetrock knife apply Joint Compound mixture to all seams and butt joints providing a smooth joint detail and transition from one piece of sheathing to the next. Immediately embed detail mesh into wet Elastomeric Joint Compound by troweling from the center to the ends/edges, causing fabric to be embedded into coating. Nailing flanges on vinyl windows shall also receive Elastomeric Joint Compound and mesh to seal and flatten transition to cement sheathing (Unless windows are mounted prior to cement substrate). This step is very important to the aesthetics of your project. In some cases a second coat of Joint Compound may be required to insure a smooth flat surface is secured.

1. Allow to dry minimum 24 hours or until dried below 19% moisture content.
2. Mesh will be continuous, flat and wrinkle free over all seams, joints and trim accessories. All ends shall be overlapped 2.5 inches.

C. PRIME SEAL: Apply primer with airless sprayer, medium nap roller, or paint brush to all areas that Stuc-O-Flex finish coat is to be applied. A uniform pinhole free layer should be provided to insure no shadowing or discoloration will occur from substrate sheathing. Allow to dry completely.

D. STUC-O-FLEX ACRYLIC FINISH COAT: Apply in color and texture as approved by Architect and/or client using stainless steel trowels or appropriate spray equipment with sufficient manpower and equipment to insure a continuous operation without cold joints, scaffolding lines, etc. Finished wall sections shall match approved sample. Coverage and thickness shall vary depending on texture desired and specified final appearance.

1. Mix STUC-O-FLEX prior to use with paddle type blade to insure consistency.
2. Small amounts of water may be added to adjust viscosity. 12oz. maximum per 5 gallon pail.

NOTE: A texture finish (Skip Trowel, Knock Down, Lace, etc…) should be considered in the Stuc-O-Flex to minimize the likelihood of visible imperfections resulting from substrate imperfections.

3.04 JOB SITE CLEAN UP

A. All excess STUC-O-FLEX wall coating materials shall be removed from the job site by the STUC-O-FLEX applicator.

NOTE: Flashing, Sealant, Proper Design and continued maintenance must prevent water intrusion behind any and all Stuc-O-Flex manufactured materials.