

## Crosstech Construction Products

### Ultimate 'Stucco': One and Two Coat Stucco System

### CSI # 09220

SPEC NOTE: Use this specification section when a comprehensive specification is required to specify stucco work using the following CROSSTECH Stucco System:

CROSSTECH ½" One or Two Coat Wall System using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate.

CROSSTECH ⅝" One or Two Coat Wall System using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate.

CROSSTECH ¾" Two Coat Wall System using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate.

See Quality Assurance for limitations when using a single base coat system.

#### Part 1 - GENERAL

##### 1.1 Section Includes:

1. All labor, materials, tools and other equipment, services and supervision required to complete all stucco work as indicated on drawings and as specified herein.
2. Work under this Contract shall also include, but not limited to the supply and/or installation of the following (UNLESS OTHERWISE PROVIDED):

SPEC NOTE: Delete, revise or add below to suit project requirements and provide required information within this specification in accordance with CROSSTECH technical requirements.

- a. Secondary Moisture Barrier membrane, Tyvek, or building paper over sheathing.
  - b. Self-adhering / self-healing flexible membrane flashing for secondary moisture barrier around openings.
  - c. Self-furring galvanized lath, or furring with flat lath.
  - d. Flashings, trims and accessories.
  - e. Control and expansion joints.
3. Unless otherwise noted, the following work or conditions are not included under this Section of work and are supplied and/or installed by others:
    - a. substrates and correction of defects and deficiencies in substrates which may adversely affect stucco work, except for minimal work performed by this trade (TO BE DEFINED IN CONTRACT DOCUMENTS).
    - b. surface preparation of substrates as required for acceptance of stucco, including cleaning.
    - c. caulking and sealants.
    - d. painting of stucco work.
  4. Design of the membrane expansion/control joints is ultimately the responsibility of the design professional. Maximum allowable deflection of CROSSTECH Stucco systems is L360.
    - a. Deflection figures to include axial and wind load deflections.

##### 1.2 Related Sections:

SPEC NOTE: Delete, revise or add below as required. Also list here any specific exclusion.

1. Refer to the following Sections for related work:
  - Section 03300 - Cast-in-Place Concrete (preparation for applied stucco finish)
  - Section 04220 - Concrete Masonry (preparation for applied stucco finish)
  - Section 06100 - Rough Carpentry (sheathing)
  - Section 07900 - Caulking and Sealants
  - Section 09100 - Exterior Steel Studs (including sheathing)

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Section 09240 - Exterior Insulation and Finishing System (EIFS)  
Section 09900 - Painting (for painted stucco)

### 1.3 Reference Standards:

1. The latest edition (at time of Bidding) of the following 'Reference Standards' shall govern all work:

SPEC NOTE: Carefully select applicable references and standards to suit project.

- \* National Building Code of Canada (NBC)
- \* B.C. Building Code
- \* Vancouver Building By-Law
- \* Workers' Compensation Board (WCB) Industrial Health and Safety Regulations
- \* Association of Wall and Ceiling Contractors (AWCC) Specification Manual
- \* British Columbia Wall and Ceiling Association (BCWCA) Stucco Resource Guide
- \* Alberta Wall and Ceiling Bureau (AWCB) Stucco Resource Guide
- \* Canadian Standards Association B111-1974, Wire Nails, Spikes and Staples
- \* Canadian General Standards Board CAN2-51.32-M77, Sheathing Membrane, Breather Type
- \* Federal Specification UU-B-790a, Building Papers
- \* ASTM C1063-99, Installation of Lathing and Furring for Portland cement Plaster
  - ASTM A563, Standard Specification for Steel, Sheet, Zinc-Coated (Galvanized) by Hot Dipped process
  - ASTM A336, Standard Specification for Standard Specification for Steel, Sheet, Carbon, Cold-Rolled Commercial Quality
  - ASTM A569/569A, Standard Specification for Security Metal Lath
  - ASTM A 653/A653M, (replaces A525 & A526) ASTM A569/569A, Standard Specification for Steel used in Metal Lath and Accessories
  - ASTM B69-66, Standard Specification for Flat Rolled (99% pure) Zinc Alloy Accessories
  - ASTM C11, Terminology relating to the Gypsum and related building materials and systems
  - ASTM C 150-99a, Standard Specification for Portland cement
  - ASTM C841, Standard Specification for Installation of Lathing and Furring
  - ASTM C847-95, Standard Specification for Metal Lath
  - ASTM C926-98a, Standard Specification for Application of Portland Cement-Based Plasters
  - ASTM C933-96a, Standard Specification for Welded Wire Lath
  - ASTM C954, Standard Specification for Steel Drill Screws to attach Gypsum board and Metal Stucco Bases to Steel Studs
  - ASTM C1032-96, Standard Specification for Woven Wire Plaster Base
  - ASTM D1784, Standard Specification for Rigid Poly Vinyl Chloride (PVC) and Chlorinated Poly Vinyl Chlorides (CPVC) compound, Accessories
  - ASTM D4216, Standard Specification for Rigid Poly Vinyl Chloride and Related Plastic Building Products Compounds
- \*ICBO AC11, Cementitious Exterior Wall Coatings

### 1.4 Quality Assurance:

1. Only applicators certified by CROSSTECH Construction Products for One and Two Coat Stucco work shall be engaged in such stucco work. Apprentices may be employed provided they work under direct supervision of certified journeyman applicators.
2. For all types of stucco, the applicator shall have a minimum of three (3) years proven satisfactory experience in work similar to that required by this section and shall show proof before commencement of work that he will maintain a qualified crew of stucco applicators throughout the duration of the work.
3. Conform to CROSSTECH specification and detail requirements contained in the CROSSTECH Technical Documents for stucco system products including preparation, detailing and application of materials.
4. All stucco base and finish materials shall be from CROSSTECH or shall be materials approved by CROSSTECH for use with specified systems.
5. Applicator shall provide adequate manpower & equipment to install CROSSTECH systems.

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### 1.5 Regulatory Requirements:

1. All materials shall be installed in strict accordance with the requirements of local authorities having jurisdiction and Code and Reference Standards noted.
2. Installation of a one & two coat stucco system utilizing a single stucco base coat (3/8", 1/2", 5/8", & 3/4" Two Coat Systems) with a finish coat shall be permitted only where approval exists from local authorities having jurisdiction.
- 3 Conform to Workers Compensation Board safety regulations and precautions for storage, mixing, application and disposal of all stucco related materials and those of local authorities having jurisdiction.

### 1.6 Field Samples and Mock-Ups:

1. When requested provide \_\_\_\_\_ samples of \_\_\_\_\_" each stucco texture and color specified on acceptable assemblies/surfaces or acceptable facsimiles for review and approval. When approved, samples shall become acceptable standard of quality for appropriate on-site surface with one of each sample retained on-site and the other at the General Contractor or Architect's office.
2. When requested, prepare a designated surface area in each texture/color scheme to requirements specified herein, with specified system showing workmanship for review and approval. When approved, surface area shall become acceptable standard of finish quality and workmanship for similar on-site work.

### 1.7 Submittals:

1. Submit manufacturer's product technical literature and specifications including proprietary components, installation instructions and recommendations for review.
2. Submit texture and color samples for review and/or selection.
3. Submit two sets of Material Safety Data Sheets (MSDS) prior to commencement of work for review and for posting at job site, as required.

### 1.8 Delivery, Storage and Handling:

SPEC NOTE: General Contractor to provide suitable site for delivery, storage and handling of materials as well as a suitable site for plastering operation.

1. Deliver all packaged manufactured stucco materials in original sealed and labeled containers.
2. Keep materials dry, off the ground, under cover, free from exposure, dampness and freezing and in accordance with manufacturer's requirements.
3. Remove any wet or deteriorated materials unsatisfactory for installation from the site.

### 1.9 Project/Site Requirements:

1. UNLESS specifically pre-approved by the specifying body and CROSSTECH, perform no stucco work when the ambient air and substrate temperatures are below 4°C (40°F) or above 38°C (100°F) for 24 hours before, during and after stucco application.
2. Do not use frozen materials or apply stucco materials to frozen surfaces or surfaces containing frost.
3. Apply stucco to clean, adequately prepared surfaces free from dust, dirt or other deleterious substances.
4. Provide adequate protection from contaminants and the weather for substrates prior to application of stucco and for stucco coat applications. Maintain in place until stucco is adequately cured.
5. Protect stucco surfaces from uneven and excessive evaporation during hot, dry or windy weather.
6. Take necessary care to identify and protect adjacent surfaces from damage from stucco application and promptly remove all droppings.
7. Report any unsatisfactory conditions in writing to the General Contractor or Architect/Owner and CROSSTECH.  
**Commencement of work shall imply acceptance of surfaces or conditions.**

### 1.10 Cooperation:

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1. Cooperate with other trades to identify all areas of conflict or requirements for stucco preparatory and installation work.

## PART 2 - PRODUCTS

### 2.1 General:

SPEC NOTE: Delete, revise or add to the example selections below to suit project requirements.

1. All materials and components shall meet CROSSTECH Technical Document requirements.
2. All stucco backing materials, furring, lathing and trim accessories, including expansion and control joints, shall meet applicable Reference Standard requirements as well as those of all local authorities having jurisdiction.

### 2.2 Backing Materials:

SPEC NOTE: Select appropriate sheathing, Secondary Moisture Barrier, Flashing, and Sealant materials to meet project requirements.

1. Flexible Membrane Flashing (around windows and all wall penetrations) to meet Federal Specifications UU-B-790a, grade A or B.

SPEC NOTE: The application of the Secondary Moisture Barrier, Flexible Membrane Flashing, and Sealants is often not the responsibility of the stucco contractor, but is, however, critical to ensure proper installation.

2. Secondary Moisture Barrier - Installed to Manufacturer and CROSSTECH Guidelines,
  - a. Dupont TYVEK Stucco Wrap is highly preferred
  - b. Sheathing paper - water repellent breather type to CGSB CAN2-51.32-M77 meeting 30 or 60 minute rating to Federal Specification UU-B-790a, grade D (two layers preferred).

SPEC NOTE: CROSSTECH recommends Dupont TYVEK Stucco Wrap or two layers of specified 30 minute paper.

3. Flexible Membrane flashing (over secondary moisture barrier around all window and door openings and wall penetrations) - minimum 30 mil thick sheet of self-adhering, self-healing, composite rubberized asphalt having a minimum membrane tensile strength of 1400 PSI (ASTM D412), elongation over 500% (ASTM D412) and maximum moisture vapor transmission rate of .1 perm (ASTM E96).
4. Window head flashing - minimum 26 gauge pre-finished galvanized steel or aluminum, color as selected by Architect/Owner, complete with sloping sill and 13 mm (1/2") drip edge.

SPEC NOTE: Flashing and Sealants used with stucco shall conform to applicable Code. If aluminum flashing is used, it shall be separated from the stucco by an impervious membrane or coating.

5. Sealants - non-hardening exterior type as recommended by stucco manufacturer and in accordance with Section 07900.
  - a. Dow Corning 790 Silicone Sealant w/1200 Prime Coat (if needed) for mortar-to-mortar joints
  - b. Dow Corning 791 Silicone Sealant mortar-to-dissimilar materials
  - c. Dow Corning 795 Silicone Sealant mortar-to-dissimilar materials
- 5.1 Sealant Color - Shall be sealant manufacturer's standard colors, as specified by Architect/Owner, except where sealant quantities warrant custom color.
6. Backer Materials - Open cell, Oakum, or other types of absorptive materials may not be used.
  - a. Backer Rod shall be round, closed cell, non-staining, non-absorbing, extruded polyethylene, flexible rod as recommended by CROSSTECH Construction Products and/or sealant manufacturer.
  - b. Bond Breaker Tape shall be used as recommended by CROSSTECH Construction Products and/or sealant manufacturer.

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### 2.3 Furring and Lathing Materials:

SPEC NOTE: Select/provide appropriate furring and lathing materials to meet project requirements.

1. Provide furring and lathing materials, including runner and cross-furring channels, furring channels, hanger and tie wire, in accordance with Reference Standard requirements.
2. Self-Furring Welded Wire Lath – galvanized wire lath to ASTM C841 and C933 of the following types:
  - \* 16 gauge lath with openings not to exceed 2” (50 mm)
  - \* 17 gauge lath with openings not to exceed 1.5” (38 mm)
  - \* 20 gauge lath with openings not to exceed 1” (25 mm)
  - \* 2.5 Self-Furring lath, galvanized diamond mesh, or better
3. Self-Furring Paperback Lath (for use over a vertical concrete or concrete masonry surface if the construction documents require a water-resistant barrier for these surfaces) – 2.5 or 3.4 pounds per square yard, combination of lath and grade D 60-minute water-resistant barrier.
4. Self-Furring Diamond-Mesh Metal Lath – 2.5 or 3.4 pound per square yard galvanized lath to ASTM C841 and C847. Use 2.5 lb lath for sheathed framed construction with supports at 16” (400 mm) o/c. For attachment directly to concrete masonry, use 3.4 lb lath sheathed framed construction with supports at 24” (600 mm) o/c.
5. Rib Lath – 3/8” (10 mm) galvanized lath to ASTM C841 and C847 for use in soffits and ceilings with open-frame construction with supports not more than 24” (600 mm) o/c.

### 2.4 Accessories:

SPEC NOTE: Select appropriate accessories and trim materials to meet project requirements, Zinc Alloy Accessories typically have a life span of twenty times that of Galvanized Accessories.

1. Provide all stucco accessories and/or trim such as expansion and control joints, stops (casing beads), internal corner reinforcement, weep and drip screeds, reveals, etc., as detailed on drawings and/or as required to complete the work in accordance with best trade practices and Reference Standards noted as well as CROSSTECH requirements.
2. Provide accessories fabricated from hot dipped galvanized steel, zinc alloy, extruded exterior grade PVC or aluminum of types and of materials pre-approved by the design authority, and to Reference Standards and CROSSTECH requirements. Use pre-finished materials where required or noted.
3. Use only PVC or zinc alloy accessories in areas where exposure to corrosive elements or salt is a concern.
4. Provide accessories with an embedment flange to key into cement plaster with depth (grounds) of accessories dependent on the required thickness of base coat, without the finish coat.
- 5 Use welded wire external corner reinforcement for maximum embedment of base coat.

NOTE: The use of No. 1A expanded corner beads for exterior corners is not recommended.

### 2.5 Fasteners:

1. Fasteners - (CSA B111-1974)(FS FF-N-105) (nails and staples) and ASTM C646 (screws), of suitable corrosion resistant material (electro and/or hot dipped galvanized steel, aluminum, stainless steel) compatible with material, sheathing, framing or other substrate being fastened and meeting Reference Standard requirements noted.
  - a. Galvanized Concrete Stub Nails - 3/4” and 1” lengths for attaching Self-Furring Lath to Masonry or Concrete walls (1/2” are not allowed by ASTM, Due to Low Pull-Out Strengths).
  - b. Barbed Galvanized Roofing Nails - Appropriate lengths to penetrate structural members sufficient to hold stucco membrane weight. Minimum 7/16” head, used for attaching lath to wood framing members.
  - c. Wafer Head Screws - Coated for corrosion resistance, various sizes and point types, for attaching lath to wood or metal framing members.
  - d. Power Activated Galvanized Fastener Pins - Are shot into concrete or CMU’s to attach lath. Requires power tool such as ITW RANSET/REDHEAD TRAKFAST or similar.

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- e. Staples - Minimum 1” crown, corrosion resistant coated, of sufficient length and diameter to attach and support stucco membrane to structural members.
  - f. Galvanized Hanger Wire - 8 or 9 gage, used primarily for suspending ceilings from structural members.
  - g. Galvanized Tie Wire - 16 or 18 gage, used to attach lath to Cold-Rolled Channel, Steel Framing, and Expansion/Control Flanges.
2. Fasteners shall be selected to suit material and substrate condition and shall bear tight against attachment item and penetrate into wood or steel framing members through sheathing (where applicable).
- a. Minimum penetration of Wood Structural Members is 3/4” (19 mm).
  - b. Minimum penetration of Light Gage Metal Studs is 3/8” (10 mm).
  - c. Minimum penetration of Masonry and Concrete is 3/4” (19 mm).
3. Fasteners shall be placed in the crotch of trim accessory flanges and/or nailing loops of wire accessories as applicable.

2.6 Stucco Materials:

- 1. Water - Potable, clean and free from oil, acid, alkali, organic matter or other deleterious substances.
  - a. Best results are obtained with material temperatures between 60 and 80 degrees Fahrenheit.
- 2. Sand - To ASTM C897, natural or manufactured, clean, sharp and free of loam, clay, silt, soluble salts and organic matter, freshwater washed. Sampling and testing to conform to ASTM C144.

**APPROXIMATE PARTICLE DISTRIBUTION OF SAND**

U.S. SEIVE SIZE	TYLER SEIVE SIZE	OPENING SIZE (mm)	MINIMUM RETAINED	MAXIMUM RETAINED
# 8 Sieve	# 8 Sieve	(2.36 mm)	0.0 %	1.0 %
# 16 Sieve	# 14 Sieve	(1.18 mm)	0.0 %	20.0 %
# 30 Sieve	# 28 Sieve	(0.600 mm)	15.0 %	30.0 %
# 50 Sieve	# 48 Sieve	(0.300 mm)	65.0 %	80.0 %
# 100 Sieve	# 100 Sieve	(0.150 mm)	80.0 %	98.0 %
# 200 Sieve	# 200 Sieve	0.075 mm)	97.0 %	100.0 %

- 3. Bonding Agent – CROSSTECH Barrier Bond or equivalent type conforming to ASTM C932, used to improve bond strength, adhesion, and reduce loss of moisture due to substrate absorption.
- 4. CROSSTECH Q-46 Sanded Stucco Mix - A pre-manufactured proprietary mixture of Portland cement, sand, fibers and proprietary additives.
  - or-
  - CROSSTECH Stucco Concentrate - A pre-manufactured proprietary mixture of Portland cement, fibers and proprietary additives.

SPEC NOTE: Select from CROSSTECH finishes indicated below to suit project requirements. Refer to CROSSTECH literature for additional information.

- 5. Custom Color - Precision formulated, custom color Acrylic stucco finish coat, colors to be selected by the Architect/Owner.

SPEC NOTE: Select color from CROSSTECH Color chart and indicate name and number above and/or on drawings and Exterior Finish Schedule, noting location and extent.

6. CROSSTECH Barrier Bond - A non-oxidizing, non-crystallizing, and non-re-emulsifiable type bonding agent conforming to ASTM C932

SPEC NOTE: Use CROSSTECH Barrier Bond to suit project requirements as a bonding agent and/or color coordinated surface primer for application to CROSSTECH One or Two Coat Stucco, concrete, masonry or existing stucco surfaces, as a pigmented primer for use with CROSSTECH Acrylic Finish Coat or LASTECH Elastomeric Acrylic Finish coat, to enhance color consistency, improve bond strength and coverage, and to increase working time in hot, dry weather. Refer to CROSSTECH literature for additional information.

7. CROSSTECH Acrylic Finish coat - A pre-manufactured acrylic based, pre-colored, weather resistant proprietary coating with (Medium Sand) (Ozark Sand) (Natural Sand) (Clear Sand) (Medium Worm) (Big Worm) (Random) textured finishes or (Paint over Textured Base Coat), colors as selected by the Architect/Owner.

8. LASTECH Elastomeric Acrylic Finish coat - A pre-manufactured 100% pure acrylic based pre-colored, UV, mildew and fungus, and weather resistant proprietary coating with, (Medium Sand) (Ozark Sand) (Natural Sand) (Clear Sand) (Medium Worm) (Big Worm) (Random) textured finishes or (Paint over Textured Base Coat), colors as selected by the Architect/Owner.

#### 2.7 Mixing of CROSSTECH One & Two Coat Stucco Products:

1. Ensure mixer and other equipment are clean and free of contamination during mixing and application of materials.
2. All materials and ingredients used shall be clean and uncontaminated.
3. Do not use household detergents, plasticizers or other admixtures, except those permitted by CROSSTECH.
4. Do not use frozen, caked or lumpy material and remove all contaminated materials from the job site.
5. Mix in a mechanical mortar mixer proportions by volume using standard accurate measuring devices having known volumes for all materials and full bag increments.
6. Use shovel count for measuring sand if standardized first.
7. Sequential batches should be proportionally alike. Size batches for complete use within one hour after mixing.
8. Mix CROSSTECH products in strict accordance with manufacturer's written instructions and unless otherwise approved, mechanically mix all ingredients.
9. Withhold approximately 10% of mixing water until mixing is nearly complete, then add remainder as required to produce desired working consistency. **Do not over water.**

### PART 3 - EXECUTION

#### 3.1 Examination:

1. Prior to commencement of work of this section, review all conditions and thoroughly inspect all substrates and surfaces scheduled to have lath and stucco applied and report in writing to the General Contractor and Architect any conditions or surfaces that will adversely affect proper installation of the specified CROSSTECH stucco system.
2. No work shall commence until all such adverse conditions and defects have been corrected and surfaces and conditions are acceptable.
3. Verify that framing, sheathing, flashing paper and flashing assembly meets minimum Reference Standards noted (especially Code) and CROSSTECH stucco installation requirements.
4. Ensure lath, furring, accessories and trim are tight and fastened securely in place and fixtures, conduits, pipes, cables and outlets are properly flashed, plugged, capped or covered before commencing stucco application.
5. Protect all adjacent surfaces and areas from stucco application operations and damage by stucco operations and make good any damage caused by failure to provide such protection.

SPEC NOTE: A **pre-construction meeting** is recommended with the Owner/Architect, General Contractor, Crosstech representative, and representatives responsible for the windows, framing, flashing, roofing, sealants, stucco and any other building components interfacing with the stucco.

#### 3.2 Installation of Secondary Moisture Barrier:

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1. Install Dupont TYVEK Stucco Wrap to manufacturer's directions (CROSSTECH recommends use of this Moisture Barrier).
  - a. Use Dupont TYVEK Tape at all points of termination (abutting dissimilar walls, bottom of wall, top of wall, through wall expansion/control joints, etc.).
  - b. Tape all overlaps for lower air infiltration and improved insulating properties.
  - c. Apply Flexible Membrane Flashing around openings in the wall, (windows, doorways, outlets, HVAC ducts, vents, etc.) over TYVEK.
2. Install Sheathing paper in accordance with Reference Standards.
  - a. Two layers of 30 minute, grade "D" building paper are recommended.
  - b. Never use roofing felt in place of building paper, unless specifically designed. This could cause moisture entrapment in the cavity of the wall.
  - c. No rips, tears or holes are allowed.
  - d. Apply Flexible Membrane Flashing around openings in the wall, (windows, doorways, outlets, HVAC ducts, vents, etc.) over building paper.

SPEC NOTE: It is important to correctly install the Secondary Moisture Barrier such that each successive course (starting from the bottom and going upward) overlaps the previous (lower) course. Special care and attention must be taken to achieve proper shingling in all situations where any flashing, membrane, termination, or penetration exists above the paper (e.g. windows, vents, etc.).

### 3.3 Installation of Stucco Trim Accessories:

1. Install stucco trim accessories in accordance with Reference Standards, trim manufacturer, and CROSSTECH requirements.
  - a. Assure that Secondary Moisture Barrier is properly installed and flashed.
  - b. Install Plaster Stop (Casing Bead) around perimeter of wall and large openings. Ground heights should be equal to final thickness of membrane.
  - c. Install Foundation Weep Screed at the bottom of all framed exterior walls, below the floor line, where the wall is supported by a floor or foundation. (In 1994, ASTM C1063 requires through wall flashing be provided behind Weep Screeds).
  - d. Install corner reinforcement in a straight, square, and plumb fashion.
  - e. **DO NOT ABUT ACCESSORIES TIGHTLY. LEAVE A 1/8" GAP BETWEEN, TO ALLOW FOR MOVEMENT OF MEMBRANE.**
  - f. All junctures of accessories should be set in a 4" bed of flexible sealant/caulk.

### 3.4 Installation of Lath:

1. Install lath in accordance with Reference Standards, lath/furring manufacturer, and CROSSTECH requirements.

SPEC NOTE: 1.75 lb/sq. yd. Diamond mesh lath is not recognized by ASTM C1063 as adequate lathing.

SPEC NOTE: Furring strips or self furring lathe is required on all solid substrate.

- a. Expanded metal lath use on concrete: Diamond mesh lath of (1.35 kg/sq. m.) 2.5 lb/sq. yd. and (30.5 cm) 12" maximum support attachment spacing.
- b. Expanded metal lath for use over wood or metal stud frame (absent sheathing): Diamond mesh lath of (1.85kg/sq. m) 3.4 lb/sq. yd., and (40.5 cm) 16" maximum support spacing.
- c. Install Expanded Wire lath across support members. Diamond mesh metal lath and 1/8" flat rib lath must be overlapped at least 1/2" at the sides and 1" at the ends. High rib lath with 3/8" ribs may be nested at the last rib on each side and lapped 1" on the ends. Paper backing must be lapped at least 2" on all edges. Overlap Wire Lath one mesh width at the sides and ends. Tie with # 18 gage galvanized, annealed, steel wire (9" on center and at corners). Stretch lath tight when installing.
- d. Attachments of expanded wire lath on framing is (15 cm) 6" o. c. vertically, and over concrete and masonry verticals are (20 cm) 8" o. c. and horizontally at (40 cm) 16" o. c.
- e. Do not butt Expanded Wire lath at exterior or interior corners. Lap around to next framing member or to (40 cm) 16" minimum.

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- f. Over wood based and exterior gypsum sheathings and some others, lath is installed over Tyvek Stucco Wrap or a minimum secondary moisture barrier of 15 # building paper (two layers are recommended) or better.
- g. Lath applied over solid surfaces should be self-furring or furred out to provide a 1/4" space for keying the membrane into the lath. Lath should be in the bottom 1/4 - 1/3 section of the membrane thickness.
- h. Ribbed lath is not recommended for vertical or wall installation because of uneven thickness of membrane and internal movements.
- i. Security lath is a patented product and details are available from Alabama Metal Industries Corporation. Trade name is SECURA LATH.

#### 3.4.1 Installation of Expansion/Control Joint Accessories:

- 1. Expansion Joints must be installed where building joints occur or where movement is expected.
- 2. Control joints are required to divide sections into not more than (13 sq. m) 144 sq. ft., where one dimension shall not exceed 2.5 times the other dimension. Where vertical and horizontal control joints intersect, the vertical should be continuous.
  - a. Lathing must be cut behind all Expansion/Control joints and Expansion/Control joint flanges shall be wire tied to the lathing on either side (ASTM C1063 section 7.10.1.4).
  - b. Flexible Membrane Flashing must be used on all through wall, (TRUE) expansion joints.
  - c. "TRUE" Expansion joints require through wall expansion, with true separation of the panels. Flanges must be nailed to structural members after being wire tied to the lath.
  - d. Expansion/Control joints are of less ground height than casing, they are attached on top of lath.
- 3. Install all other trim accessories at this time.

#### 3.5 Application of Stucco Base Coats - General:

NOTE: Do not apply when vibrations are present in the structure or when vibrations are expected prior to completed curing of the product ( i.e. hammering, etc)

- 1. Minimum stucco application standards shall be in accordance with noted Reference Standards and CROSSTECH requirements with application methods in accordance with best trade practices for type and application of materials used.

SPEC NOTE: Select the appropriate: one coat or two coat base coat system. Verify acceptance of base coat system with appropriate authorities having jurisdiction before application.

- 2. Apply 1/2", 5/8", and 3/4" CROSSTECH Stucco systems in strict accordance with CROSSTECH written instructions and recommendations and the following:
- 3. Apply stucco base coats to entire wall panel and soffit surfaces interrupted only at junctions of plaster planes, at openings or at control joints in one continuous operation using trowel or machine.

SPEC NOTE: For CROSSTECH 3/8" One Coat system using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate use the following;

- 4. Apply 3/8" CROSSTECH Stucco Mix in a first pass to completely embed lath.
- 5. Double back to fill to 3/8" thick, so that the total system thickness is equal to 3/8".
- 6. Rod the coat to a true, even plane, filling surface defects and trowel-float surface uniformly after it has set and when moisture is still present in it. (The float should not adhere to the surface that is to be worked).

SPEC NOTE: For CROSSTECH 1/2" One or Two Coat system using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate use the following:

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9. Apply 3/8" CROSSTECH Stucco Mix in first coat & scratch for two coat method, to completely embed lath to a minimum thickness of 10 mm (3/8"). After first coat is set, apply a second coat to achieve minimum thickness of 13 mm (1/2") and rod off to a fine flat plane followed by darbying to provide a smooth surface for finish coat.

10. Apply 3/8" CROSSTECH Stucco Mix in one pass and using the double back method to completely embed lath to a minimum thickness of 13 mm (1/2") and rod off to a fine flat plane followed by darbying to provide a smooth surface for finish coat. Two separate coats may be done if the first coat is scratched and dried.

SPEC NOTE: For CROSSTECH 5/8" One or Two Coat system using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate use the following:

11 Apply 3/8" CROSSTECH Stucco Mix in first coat & scratch for two coat method, to completely embed lath to a minimum thickness of 10 mm (3/8"), then scratch. After first coat is set, apply a second coat to achieve minimum thickness of 15.88 mm (5/8") and rod off to a fine flat plane followed by darbying to provide a smooth surface for finish coat.

SPEC NOTE: For CROSSTECH 3/4" Two Coat system using CROSSTECH Stucco Mix or CROSSTECH Stucco Concentrate use the following:

12 Apply 3/8" CROSSTECH Stucco Mix in first coat & scratch for two coat method, to completely embed lath to a minimum thickness of 10 mm (3/8"), then scratch. After first coat is set, apply a second coat to achieve minimum thickness of 18 mm (3/4") and rod off to a fine flat plane followed by darbying to provide a smooth surface for finish coat.

13. Maximum deviation from true plane of base coat surfaces shall be (3 mm in 1525 mm) 1/8" in 60" as measured by a straight edge placed at any location on surface.

### 3.6 Curing of Cementitious Coats:

SPEC NOTE: **Climactic conditions may dictate the need for moist-curing of cementitious membranes.**

1. Moist cure cement based stucco with clean water to maintain plaster uniformly moist for a minimum of 24 hours following applications.
  - a. Moist cure is only necessary when high temperatures (90+ degrees Fahrenheit), low humidity (below 60 % relative humidity), high winds (more than 15 mph), or any combination of these are present.
2. Provide adequate protection (plastic sheets) to retard evaporation where extreme conditions occur.
3. Do not allow to freeze prior to cure.
4. Do not spray walls with high pressure water for at least 7 days.

### 3.7 Application of Stucco Finish Coats:

1. Ensure that the surface temperature of substrate is above (4°C) 40 degrees F, for a minimum of 24 hours during and after application of finish coat.
2. Install selected finish coat in strict accordance with CROSSTECH Stucco system requirements, ensuring that enough workers are present to apply material in one continuous operation to finish entire sections of wall and soffit areas at one time. Interrupt application only at natural breaks in construction, i.e., at expansion joints, changes of plane, system termination, etc.
3. Avoid application of finish coat materials in direct sunlight and excessive wind or heat.
  - a. Construct applicable shields as needed.
4. Avoid application of CROSSTECH Acrylic and LASTECH Elastomeric Acrylic finish coats late in the day if dew is imminent or if temperatures below (4°C) 40 degrees F, are expected within 24 hours.
5. Spread on an even coat of finish coat material using a trowel, always working from a wet edge.
  - a. Refer to product data literature.
6. For CROSSTECH Acrylic and LASTECH Elastomeric Acrylic finish coat work, use pairs of applicators, with first person, applying finish and the second, floating or texturing the finish to desired texture.

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- a. Maintain a wet edge to a termination point.

### 3.8 Curing of Stucco Finish Coats:

1. Cure selected finish coat materials in strict accordance with CROSSTECH system requirements and the following:
2. Provide adequate protection (plastic sheets) to protect from wet and cold conditions, heat when necessary.
3. Allow finish coats a minimum of 24 hours to set.
4. Air cure CROSSTECH Acrylic and LASTECH Elastomeric Acrylic finish coats only; do not moist cure.

### 3.9 Field Quality Control:

1. All surfaces, preparation and base coat stucco applications shall be inspected.
2. Stucco surfaces shall be considered to lack uniformity and soundness if any of the following defects are apparent to the Inspection Agency Inspector:
  - a. Cracks resulting from incorrect application methods.
  - b. Evidence of poor coverage (i.e., not applied to thickness specified or shown) on walls and soffits, particularly at joints, corners and re-entrant angles.
  - c. Damage due to or the result of poor application of patching stucco at scaffold fixing points.
  - d. Damage due to touching before stucco is sufficiently dry or any other contributory cause.
  - e. Damage due to application on moist surfaces or caused by inadequate protection from the weather.
  - f. Damage and/or contamination of stucco due to wind blown contaminants (dust, sand blast materials, salt spray, etc.)
3. Stucco surfaces rejected by the Inspection Agency and/or Architect/Owner shall be made good. Small affected areas may be touched up; large affected areas or areas without adequate coverage or with cracking shall be removed and redone.

#### 3.9.1 Protection:

1. Ensure that all newly applied stucco surfaces are protected from rain, snow, condensation, contamination, dust, salt spray and freezing temperatures until stucco is completely dry and cured. Curing periods shall exceed the manufacturer's recommended minimum time requirements.
2. Ensure that barriers or screens and signs are provided to warn of or limit or direct traffic away from or around work area and to protect newly applied stucco surfaces from hazardous contact.

#### 3.9.2 Clean-up:

1. Remove all excess materials from the project site.
2. Clean equipment and dispose of wash water as well as all other cleaning and protective materials, in accordance with the safety requirement of authorities having jurisdiction.