



SECTION 074646
FIBER CEMENT SIDING

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiber cement panels of the following types:
 - 1. Authentic Series:
 - a. Patina Original by Swisspearl
 - b. Patina Rough by Swisspearl
 - c. Patina Groove by Swisspearl
 - d. Deco by Swisspearl
 - 2. Natural Series:
 - a. Avera by Swisspearl
 - b. Carat by Swisspearl
 - c. Grivial by Swisspearl
 - d. Nobilis by Swisspearl
 - e. Planea by Swisspearl
 - f. Reflex by Swisspearl
 - g. Terra by Swisspearl
 - h. Vintago by Swisspearl
 - i. Vintago-Reflex by Swisspearl
 - j. Zenor by Swisspearl
 - 3. Raw Series:
 - a. Construction by Swisspearl (formerly Minerit)
- B. Cladding attachment system.

1.2 RELATED SECTIONS

- A. Section 05400 - Cold-Formed Metal Framing.
- B. Section 06100 - Rough Carpentry.
- C. Section 07210 - Building Insulation.
- D. Section 07250 - Air Barriers.
- E. Section 07280 – Water-resistive Barriers

1.3 REFERENCES

References are product specific. See specific product in Part 2 to see which testing applies.

- A. ASTM - ASTM International:

1. ASTM C1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards.
 2. ASTM C1186 - Standard Specification for Flat Fiber-Cement Sheets.
 3. ASTM E84 - Surface Burning Characteristics of Building Materials.
 4. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750-degree C. Determination of Non-Combustibility.
 5. ASTM G155-05 – Standard Method for Using Xenon Arc Lamp Apparatus for Exposure of Non-Metallic Materials
- B. CEN - European Committee for Standardization:
1. EN 12467 - Fiber Cement Flat Sheets-Product Specifications and Test Methods.
 2. EN 13501 - Fire Test to Building Material.
 3. EN 20105 - Test for Color Fastness.
 - a. Part A02 Grey Scale.
- C. ULC - National Standard of Canada
1. CAN/ULC S102 - Surface Burning Characteristics of Building Materials and Assemblies
 2. CAN/ULC S114 - Standard Method of Test for Determination of Non-Combustibility in Building Materials
- D. IAPMO - The International Association of Plumbing and Mechanical Officials
1. IAPMO-UES Evaluation Report: 0551 Cembrit Fiber-Cement Façade Panel System
 2. IAPMO-UES Evaluation Report: 899 Cembrit Fiber-Cement Façade Panel System

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300 - Administrative Requirements.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
 2. Storage and handling requirements and recommendations.
 3. Installation methods.
- C. Shop Drawings: Provide detailed drawings of non-standard applications of fiber cement materials which are outside the scope of the standard details and specifications provided by the manufacturer.
- D. Attachment System Engineered Drawings:
1. Provide engineered design for attachment and back-up framing to support exterior cladding.
 2. Provide static calculations verifying sizing of members, attachment devices and fasteners to support the exterior cladding with a safety factor required by Authority Having Jurisdiction (AHJ).
 3. Provide Installation drawings and details.
- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Minimum of 2 years experience with installation of similar products.
- B. Color Evaluation: Insignificant change after 3000 hours of QUV test (EN 20105).

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Remodel mock-up area as required to produce acceptable work.

1.6 FABRICATION, DELIVERY, STORAGE, AND HANDLING

- A. All cladding materials to be finished and fabricated in the United States with backup inventory in residence in the United States to support job in-progress.
- B. Store products in manufacturer's unopened packaging until ready for installation in accordance with manufacturer's recommended guidelines.
- C. All cladding materials to be fabricated to end use panel sizes with holes drilled in manufacturer's fabrication facility. Shop drawings are to determine panel sizes. Shop drawings through the manufacturer are recommended. If outsourced, manufacturer must be consulted.

1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 WARRANTY

- A. Warranty: Manufacturer warrants that its products are manufactured in accordance with its applicable material specifications and are free from defects in materials and workmanship.
 - 1. Only products that are installed and used in accordance with applicable manufacturer's instructions and specifications are warranted.
 - 2. The warranty is applicable only to claims made in writing and received by the manufacturer within thirty days after the defect was covered and within twenty (20) years after the date of the shipment of the product by the manufacturer. For Deco, the warranty is applicable only to claims made in writing and received by the manufacturer within thirty days after the defect was covered and within ten (10) years after the date of the shipment of the product by the manufacturer

PART 2 PRODUCTS

2.1 MANUFACTURER/SUPPLIER

- A. Basis of Design: Swisspearl Fiber Cement Panel supplied by American Fiber Cement Corp.; 6901 S. Pierce St. Suite 180, Littleton, CO 80128. ASD. Tel: (303) 972-5107. Email: house@afcccladding.com. Web: <http://www.americanfibercement.com>.
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600 - Product Requirements.

2.2 AUTHENTIC FIBER CEMENT SERIES:

- 1. Product: **Patina** by Swisspearl supplied by American Fiber Cement Corp.
 - a. Finish: Through-colored, muted, matte finish with a unique weather-proof treatment.
 - b. Thickness: 8 mm (5/16").
 - c. Untrimmed Width: 1250 mm (49.2")

- d. Untrimmed Lengths: 2500 mm (98.4"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: P 020 (Granite).
 - h. Color: P 050 (Graphite).
 - i. Color: P 070 (Flint).
 - j. Color: P 222 (Pearl).
 - k. Color: P 313 (Tufa).
 - l. Color: P 323 (Magma).
 - m. Color: P 333 (Adobe).
 - n. Color: P 343 (Ruby).
 - o. Color: P 545 (Sand).
 - p. Color: P 565 (Amber).
 - q. Color: P 626 (Emerald).
 - r. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - s. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - t. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0899 Swisspearl Fiber-Cement Panel System
 - u. For additional test data, see product datasheet.
2. Product: **Patina Rough** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Through-colored, muted, rough, sandblasted textured finish with a unique weather-proof treatment.
 - b. Thickness: 8 mm (5/16").
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2500 mm (98.4"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: P 020 (Granite).
 - h. Color: P 050 (Graphite).
 - i. Color: P 070 (Flint).
 - j. Color: P 222 (Pearl).
 - k. Color: P 545 (Sand).
 - l. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - m. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - n. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0899 Swisspearl Fiber-Cement Panel System
 - o. For additional test data, see product datasheet.
3. Product: **Patina Inline** by Swisspearl supplied by American Fiber Cement Corp.

- a. Finish: Through-colored, muted, matte finish with milled linear grooves and a unique weather-proof treatment which makes it resistant to staining and surface dirt.
 - b. Thickness: 9.5 mm (3/8")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2500 mm (98.4"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: P 020 (Granite).
 - h. Color: P 050 (Graphite).
 - i. Color: P 070 (Flint).
 - j. Color: P 222 (Pearl).
 - k. Color: P 545 (Sand).
 - l. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - m. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - n. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0899 Swisspearl Fiber-Cement Panel System
 - o. For additional test data, see product datasheet.
1. Product: **Deco** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Autoclaved baseboard with sanding grain lines covered by an opaque, water-based acrylic coating.
 - b. Thickness: 8 mm (5/16").
 - c. Untrimmed Width: 1192 mm (47")
 - d. Untrimmed Lengths: 2500 mm (98.4"), 3050 mm (120.1")
 - e. Trimmed Width: 1168.4 mm (46")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: D 030 (Fossil)
 - h. Color: D 100 (Charcoal).
 - i. Color: D 190 (Carbon).
 - j. Color: D 212 (Cirrus).
 - k. Color: D 330 (Sienna).
 - l. Color: D 350 (Chestnut).
 - m. Color: D 555 (Aspen).
 - n. Color: D 562 (Wheat).
 - o. Color: D 600 (Sage).
 - p. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - q. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - r. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0899 Swisspearl Fiber-Cement Panel System
 - s. For additional test date, see product datasheet.

2.3 NATURAL FIBER CEMENT SERIES:

1. Product: **Avara** by Swisspearl supplied by American Fiber Cement Corp.
 - a. Finish: Translucent matte surface coating showing a varies texture look.
 - b. Thickness: 8 mm (5/16").
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: AV 060
 - h. Color: AV 020
 - i. Color: AV 040
 - j. Color: AV 050
 - k. Color: AV 100
 - l. Color: AV 010
 - m. Color: AV 000
 - n. Color: AV 070
 - o. Color: AV 030
 - p. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - q. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - r. Light Fastness (ASTM G155-05): Comply
 - s. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0898 Swisspearl Fiber-Cement Panel System
 - t. For additional test data, see product datasheet.

2. Product: **Carat** by Swisspearl supplied by American Fiber Cement Corp.
 - a. Finish:
 - 1) Standard Coating – Through-colored with a lightly pigmented translucent, matte surface coating.
 - 2) HR – High Resistance Coating – Through-colored with a lightly pigmented translucent, matte surface coating.
 - b. Thickness:
 - 1) 8 mm (5/16")
 - 2) 12mm (1/2")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: Anthracite 7021
 - h. Color: Anthracite 7020
 - i. Color: Anthracite 7025
 - j. Color: Anthracite 7024
 - k. Color: Azurite 7041
 - l. Color: Azurite 7040
 - m. Color: Jade 7050
 - n. Color: Granite 7060

- o. Color: Granite 7061
 - p. Color: Crystal 7010
 - q. Color: Ivory 7091
 - r. Color: Ivory 7090
 - s. Color: Ivory 8099
 - t. Color: Limestone 7082
 - u. Color: Sandstone 7000
 - v. Color: Sandstone 7002
 - w. Color: Sandstone 7001
 - x. Color: Amber 7073
 - y. Color: Amber 7070
 - z. Color: Amber 7071
 - aa. Color: Coral 7032
 - bb. Color: Coral 7030
 - cc. Color: Coral 7031
 - dd. Color: Custom
 - ee. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification (EN 12467): Category A.
 - 2) Strength classification (EN 12467): Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - ff. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - gg. Light Fastness (ASTM G155-05): Comply
 - hh. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - ii. For additional test data, see product datasheet.
3. Product: **Gravial** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Linear milled surface structure and glazing translucent, matte coating.
 - b. Thickness: 12 mm (1/2”).
 - c. Untrimmed Width: 1250 mm (49.2”)
 - d. Untrimmed Lengths: 2510 mm (98.8”), 3050 mm (120.1”)
 - e. Trimmed Width: 1219.2 mm (48”)
 - f. Trimmed Lengths: 2438 mm (96”), 3045 mm (119.875”)
 - g. Color: Anthracite 3020
 - h. Color: Granite 624
 - i. Color: Crystal 125
 - j. Color: Ivory 3099
 - k. Color: Ivory 3090
 - l. Color: Amber 723
 - m. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - n. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - o. Light Fastness (ASTM G155-05): Comply
 - p. IAPMO – The International Association of Plumbing and Mechanical Officials

- q. 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
For additional test data, see product datasheet.
4. Product: **Nobilis** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish:
 - 1) Standard Coating – Grey-based with a lightly pigmented translucent, matte surface coating.
 - 2) HR – High Resistance Coating – Grey-based with a lightly pigmented translucent, matte surface coating (8mm only).
 - b. Thickness:
 - 1) 8 mm (5/16")
 - 2) 12mm (1/2")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: Amber 721
 - h. Color: Amber 723
 - i. Color: Granite 622
 - j. Color: Granite 624
 - k. Color: Anthracite 221
 - l. Color: Azurite 421
 - m. Color: Azurite 422
 - n. Color: Jade 522
 - o. Color: Jade 521
 - p. Color: Crystal 123
 - q. Color: Crystal 125
 - r. Color: Crystal 122
 - s. Color: Crystal 124
 - t. Color: Custom (8mm only)
 - u. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - v. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - w. Light Fastness (ASTM G155-05): Comply
 - x. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - y. For additional test data, see product datasheet.
5. Product: **Planea** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Grey based with an opaque acrylic based paint coating.
 - b. Thickness:
 - 1) 8 mm (5/16")
 - 2) 12mm (1/2")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: Midnight 231
 - h. Color: Jungle 532

- i. Color: Cactus 531
 - j. Color: Skylight 131
 - k. Color: Igloo 932
 - l. Color: Snowflake 930
 - m. Color: Sunrise 831
 - n. Color: Sunset 832
 - o. Color: Ruby 334
 - p. Color: Crimson 333
 - q. Color: Dragon 332
 - r. Color: Custom (8mm only)
 - s. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - t. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - u. Light Fastness (ASTM G155-05): Comply
 - v. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - w. For additional test data, see product datasheet.
6. Product: **Reflex** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Through-colored with a reflective opaque acrylic based paint coating.
 - b. Thickness:
 - 1) 8 mm (5/16")
 - 2) 12mm (1/2")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: Midnight 231
 - h. Color: Jungle 532
 - i. Color: Cactus 531
 - j. Color: Skylight 131
 - k. Color: Igloo 932
 - l. Color: Snowflake 930
 - m. Color: Sunrise 831
 - n. Color: Sunset 832
 - o. Color: Ruby 334
 - p. Color: Crimson 333
 - q. Color: Dragon 332
 - r. Color: Custom (8mm only)
 - s. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - t. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.

- u. Light Fastness (ASTM G155-05): Comply
 - v. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - w. For additional test data, see product datasheet.
7. Product: **Terra** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Grey based with a translucent, matte strongly pigmented surface coating.
 - b. Thickness:
 - 1) 8 mm (5/16")
 - 2) 12mm (1/2")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: Amber 751
 - h. Color: Amber 752
 - i. Color: Amber 753
 - j. Color: Amber 754
 - k. Color: Amber 755
 - l. Color: Amber 756
 - m. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - n. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - o. Light Fastness (ASTM G155-05): Comply
 - p. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - q. For additional test data, see product datasheet.
8. Product: **Vintago** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: HR – High Resistance Coating – Through-colored rough textured look with translucent, matte surface coating.
 - b. Thickness: 8 mm (5/16")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: VI 061
 - h. Color: VI 021
 - i. Color: VI 040
 - j. Color: VI 050
 - k. Color: VI 100
 - l. Color: VI 011
 - m. Color: VI 091
 - n. Color: VI 001
 - o. Color: VI 071
 - p. Color: VI 031

- q. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - r. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - s. Light Fastness (ASTM G155-05): Comply
 - t. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - u. For additional test data, see product datasheet.
9. Product: **Vintago-Reflex** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish: Through-colored rough textured look with reflective, opaque surface coating.
 - b. Thickness: 8 mm (5/16")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: VIR 9000
 - h. Color: VIR 9221
 - i. Color: VIR 9292
 - j. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - k. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
 - l. Light Fastness (ASTM G155-05): Comply
 - m. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
 - n. For additional test data, see product datasheet.
1. Product: **Zenor** by Swisspearl supplied by American Fiber Cement Corp.
- a. Finish:
 - 1) Standard Coating – Through-colored with an opaque, matte acrylic paint surface coating.
 - 2) HR – High Resistance Coating – Grey-based with a lightly pigmented translucent, matte surface coating (8mm only).
 - b. Thickness: 8 mm (5/16")
 - c. Untrimmed Width: 1250 mm (49.2")
 - d. Untrimmed Lengths: 2510 mm (98.8"), 3050 mm (120.1")
 - e. Trimmed Width: 1219.2 mm (48")
 - f. Trimmed Lengths: 2438 mm (96"), 3045 mm (119.875")
 - g. Color: 69055
 - h. Color: 67014
 - i. Color: 67159
 - j. Color: 41055
 - k. Color: 51101

- l. Color: 67007
- m. Color: 63077
- n. Color: 65061
- o. Color: 65126
- p. Color: 15015
- q. Color: 11115
- r. Color: 11006
- s. Color: 23057
- t. Color: 35154
- u. Color: 33106
- v. Color: 35005
- w. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
- x. Fire Testing:
 - 1) ASTM E84.
 - 2) ASTM E136.
 - 3) CAN/ULC S102.
 - 4) CAN/ULC S114.
 - 5) EN 13501-1: A2-s1-d0.
- y. Light Fastness (ASTM G155-05): Comply
- z. IAPMO – The International Association of Plumbing and Mechanical Officials
 - 1) IAPMO-UES Evaluation Report 0551 Swisspearl Fiber-Cement Panel System
- aa. For additional test data, see product datasheet.

2.4 RAW FIBER CEMENT SERIES:

- 1. Product: Construction (formerly Minerit) by Swisspearl supplied by American Fiber Cement Corp.
 - a. Application: Exterior.
 - b. Application: Interior.
 - c. Finish:
 - 1) Field painted per exterior finish schedule.
 - 2) Clear sealed.
 - 3) Raw (Not permitted on exterior applications).
 - d. Thickness:
 - 1) 4 mm (5/32") For interior applications only.
 - a) Width: 1220mm (Untrimmed)
 - b) Length: 3050mm (Untrimmed)
 - 2) 6 mm (1/4"). For interior applications only. Requires minimum order.
 - a) Width: 1220mm (Untrimmed)
 - b) Length: 2440mm (Untrimmed)
 - 3) 8 mm (5/16") Recommended for exterior applications.
 - a) Width: 1250mm (Untrimmed)
 - b) Length: 2500mm, 3050mm (Untrimmed)
 - 4) 10 mm (3/8")
 - a) Width: 1220mm (Untrimmed)
 - b) Length: 2440mm, 3050mm (Untrimmed)
 - e. Physical Characteristics: ASTM C1185/C1186, EN 12467 'Fiber-cement flat sheets'.
 - 1) Durability classification: Category A.
 - 2) Strength classification: Class 4.
 - 3) Freeze thaw test: greater than 100 cycles.
 - f. Fire Testing:
 - 1) ASTM E84.

- 2) ASTM E136.
- 3) CAN/ULC S102.
- 4) EN 13501-1: A2-s1-d0.
- g. For additional test data, see product datasheet.

2.5 MISCELLANEOUS CLADDING MATERIALS

- A. Water-resistive Barrier: DELTA®- FASSADE S by Dörken Systems Inc. See Section 07280 – Water-resistive Barriers. (Supplied by American Fiber Cement Corp.)
- B. Air Barrier: DELTA®-VENT SA by Dörken Systems Inc. See Section 07250 - Air Barriers. (Supplied by American Fiber Cement Corp.)
- C. Aluminum Joint Closures and Cembrit Decorative Corner Profiles: Manufacturer's standard products as detailed. Maximum thickness of finishing profile to be 0.8 mm or 21-gauge.

2.6 ATTACHMENT SYSTEMS

- A. Attachment System, Steel Supporting Members:
 - 1. Product: "Hat" or "Z" profiles supplied by others.
 - a. Material: Steel, minimum 16-gauge, minimum G90 coating.
 - 2. UV Protective Membrane: As supplied by American Fiber Cement Corp.
 - a. For open joint ventilated rain screen systems.
- B. Attachment System, Aluminum Supporting Members:
 - 1. Product: "Hat" or "Z" profiles supplied by others.
 - a. Material: Aluminum - min. 2mm thickness.
 - 2. UV Protective Membrane: Supplied by American Fiber Cement Corp.
 - a. For open joint ventilated rain screen systems.
- C. Attachment System, Wood Supporting Members:
 - 1. Product: Wood profiles supplied by others.
 - a. Material: Pressure treated wood.
 - 2. UV Protective Membrane: Supplied by American Fiber Cement Corp.
 - a. For open joint ventilated rain screen systems.
- D. Attachment System, XKELEX Z19:
 - 1. Product: Perforated Horizontal Aluminum profiles supplied by American Fiber Cement Corp.
 - a. Material: 6063-T5
 - b. Finish: Black Powder Coat
 - 2. UV Protective Membrane: Supplied by American Fiber Cement Corp.
 - a. For open joint ventilated rain screen systems.

2.7 FIXING ACCESSORIES FOR ATTACHMENT SYSTEMS

- A. Rivets: Stainless steel Astro rivets (for use with metal supporting members).
 - 1. Supplied by American Fiber Cement Corp.
- B. Rivets: Color-matched stainless-steel Astro rivets (for use with metal supporting members).
 - 1. Supplied by American Fiber Cement Corp.
- C. Screws: Stainless steel screws (for use with wood supporting members).
 - 1. Supplied by American Fiber Cement Corp.
- D. Screws: Color-matched stainless-steel screws (for use with wood supporting members).
 - 1. Supplied by American Fiber Cement Corp.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved submittals.
- B. For exterior applications, comply with local codes and structural engineer's fastening calculations along with manufacturer's recommendations for fastener spacing.

3.4 EXTERIOR CLADDING FOR RAINSCREEN APPLICATIONS

- A. Detailing Requirements:
 - 1. Air space at top and bottom of building or wall termination shall be 3/4 inch (20 mm) to facilitate airflow from behind the panels. Do not block vertical airflow at windows, doors, eaves, or at the base of the building. Airflow shall be continuous from bottom to top so there is air movement behind each panel. For walls over 60 feet high (18 m), the ventilated cavity between rear of panels and exterior wall shall be increased to 1-5/8 inches (40 mm). Air flow behind the cement fiber panels is critical to the performance of the rain screen constructions.
 - 2. Fasteners in profile shall accommodate thermal expansion/contraction of metal and not interfere with panel application.
 - 3. Install panels from top of building to bottom.
 - 4. For straight walls, start panel installation in center and work outward.
 - 5. For walls with inside corners, start installation at corner and work across wall.
- B. Rain Screen Installation: Comply with manufacturer's installation requirements.
 - 1. Attachment System: Comply with manufacturer's engineered design for cladding support framing.

3.5 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.
- C. See AFC Maintenance and Cleaning Guidelines for additional information.

END OF SECTION