

SECTION 03361 ARCHITECTURAL FORM LINERS

SECTION 03121 - FORM LINERS

1. GENERAL

1.1 SECTION INCLUDES

- A. Plastic form liners for architectural concrete.

1.2 RELATED SECTIONS

Delete sections below not relevant to this project; add others as required.

- A. Section 03120 - Architectural Cast-In-Place Concrete Forms.
- B. Section 03300 - Cast-In-Place Concrete.
- C. Section _____ - _____

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's product data sheets and application instructions.
- C. Sample Panel: Within 30 days of receiving the general contract, General Contractor is required to submit a 24" x 24" sample of the architectural finish. Sample is to demonstrate the finish described in this section.
- D. Shop Drawings: Plan, elevation, and details to show overall pattern, joint locations, form tie locations, edge, and other special conditions.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Inspect the materials upon delivery to assure that specified products have been received.
- B. Store liners in closed shipping crates until needed on work site; protect from sunlight, dirt, and debris.
- C. Once attached to formwork, store form liners on edge. Avoid striking face with heavy, sharp, or heated objects that could cause permanent damage

1.5 QUALITY ASSURANCE

- A. Formliner manufacturer: Five years of experience manufacturing formliner to create formed architectural concrete surfaces.
- B. Pre-Installation Meeting: Schedule a conference with manufacturer representative to assure understanding of formliner, molds use, color application, requirements for construction of mockup, and to coordinate the work.

2. PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer:
Custom Rock Formliner
2020 West 7th Street, Saint Paul, MN 55116
(651) 699-1345 Phone / (651) 699-1830 Fax
info@customrock.com / www.customrock.com

Delete non-applicable lines below; coordinate with Division I requirements.

- B. Requests for substitutions will be considered in accordance with provisions of Section 01600
- C. Substitutions: Not permitted.
- D. Provide all form liners from a single manufacturer.

2.2 MATERIALS

Select form material(s) from the four paragraphs following, deleting those not required for the project. Select on the basis of the specific application and the number of uses required.

V-Lite Styrene is an inexpensive alternative for providing architectural concrete. It is a single use lightweight plastic formliner. It is the least expensive formliner option

V-Lite ABS is an inexpensive alternative for providing architectural concrete. It is a multi-use (Up to 10 reuses) lightweight plastic formliner.

- A. V-Lite Styrene: Polystyrene plastic.
- B. V-Lite ABS Plastic: Premium quality ABS plastic.

Delete non-applicable line items below

- C. Silicone Caulking: _____
- D. Staples: 7/16" Crown Staples, 16 ga by 3/4" Length
- E. Nails: _____

Add additional materials required for the specific installation on line item below.

- F. _____

2.3 PRODUCTS

Select standard product(s) from www.customrock.com. Refer to manufacturer's website or actual samples for representations of products and patterns. Note that, as standards, not all products and patterns are available in all materials.

- A. Pattern # 0000 , Name (change to desired pattern number and name)

3. EXECUTION

3.1 ACCEPTABLE INSTALLERS

- A. Architectural concrete construction: five years of experience pouring vertically formed architectural concrete. Installer shall be trained in manufacturer's special techniques in order to achieve architectural surfaces.

3.2 CONSTRUCTION

- A. Create a mockup representing actual job conditions. Architect/Engineer and Owner will determine specific requirements and location, and whether mockup shall be incorporated into the project.

3.3 PREPARATION

- A. Apply release to form liners before each use and within the same day that concrete is placed.
- B. Use form release sprayer and vary spray angle to ensure complete coverage of all pattern features. Use a brush for deep or rough patterns.

3.4 INSTALLATION

Architectural form liners can be attached to modular forming systems, job-built plywood forms, concrete slabs, or precast beds. Select the procedure(s) for attaching form liners from the paragraphs below, deleting those not required.

Concrete mix design (workability, pressure, color, set, and strength) will affect the use of form liners. Place concrete using a pump or conveyor with drop chute to avoid segregation. Place in two foot (610 mm) lifts and do not move material horizontally (uncontrolled horizontal movement may result in flow lines visible in the finished surface).

- A. Attachment – Standard Form Systems; Plastic Form Liners:
 - A.1 Set backing for plastic form liner on formwork.

- A.2 Assemble and brace the architectural side of the formwork first; attach form liner before setting ties or opposite formwork side.
 - A.3 Apply foam tape to back side of form liner along all edges on low relief patterns; allow foam tape to extend beyond the edge when the form liner will be jointed.
 - A.4 Work with one sheet at a time; position form liner against formwork so that edges, pattern, and joints are square.
 - A.5 Staple form liner on 3" (76 mm) centers and around all tie locations; drive staple heads flush with surface.
 - A.6 Apply silicone along plastic formliner seams and screed flush to minimize visibility.
 - A.7 Insert grout seal block to support joint and prevent grout seepage.
 - A.8 Insert grout seal blocks as required to seal tie holes, fill voids in box outs and open-ended patterns, or support especially deep patterns.
- B. Attachment – Tilt-up Systems; Plastic Form Liners:
- B.1 Set backing on concrete slab (if required).
 - B.2 Apply foam tape to back side of form liner along all edges on low relief patterns (recommended not required); allow foam tape to extend beyond the edge when the form liner will be jointed
 - B.3 Work with one sheet at a time; position form liner against slab so that edges, pattern, and joints are square.
 - B.4 Drill pilot holes through liner into slab and fasten form liner into slab using large head nails.
 - i. Alternate fastening: use concrete fasteners to secure liner to slab.
 - B.5 Apply silicone along plastic formliner seams and screed flush to minimize visibility.
- C. Stripping
- C.1 Strip within 24 hours
 - C.2 Strip perpendicular to concrete face
 - C.3 Form stripping and related construction shall avoid creating defects on finished surface.