

Spectra-Glaze[®] Glazed Block

Part 1 General

GENERAL

This section covers information specific to pre-faced concrete block and its installation.

RELATED WORK

Usual requirements for block work, mortars, reinforcing and other details applicable to the concrete block portion of this product shall be in accordance with the Sections covering these items (or) shall be in accordance with best practices for block work, all proposed products and execution subject to prior approval.

GENERAL CONDITIONS AND OTHER REQUIREMENTS:
(define)

SUBMISSIONS

Supply complete product literature, color kit, test report copies, representative shapes.

SAMPLE PANELS

Construct a panel at least 4' x 4' for each color. Include all block types and sizes to be used in that color. Do not remove panels until building has been accepted.

DELIVERY

Palletized with individual faces protected. Keep dry.

STORAGE AND HANDLING

Keep dry. Store on level ground. Do not double stack pallets. Avoid excess movement before installation.

JOB CONDITIONS

Follow ordinary good practices for concrete block work; suitable temperature and lighting.

Part 2 Products

PRE-FACED CONCRETE BLOCK

Spectra-Glaze® II Units

MANUFACTURER

Spectra Glaze by Westbrook Concrete Block Company: Westbrook Connecticut, tel. 860.399.6201.

FACING COMPONENTS

Facing ingredients must be Spectra-Glaze® Compound made with Spectra-Glaze® polymers, supplied to approved manufacturers by Spectra Materials Corporation, a Spectra Sciences, LLC company, and other ingredients as required to meet or exceed Spectra-Glaze® Block product standards including ASTM C 744. The facing (up to 1/8" thick) is factory applied to each block and becomes integral with the concrete, transforming the irregular grey concrete block into a finished wall surface.

PRE-FACED SURFACES

Interior use – smooth, colored satin finish conforming to the most up-to-date official Spectra-Glaze® product standards published by Spectra Industrial Licensing Corporation and ASTM C 744.
Exterior use – smooth, satin finish, conforming to ASTM C 744, ASTM C 67, paragraph 8 (freeze-thaw) and Thermal Shock Test B 100JL, 2 4P.

COLOR AND APPEARANCE

Spectra-Glaze® units are available in their own unique range of standard and custom colors, scale and sculptured faces—not available in natural stone, brick and marble. Creams, white, grays, tans, and heather and pastels provide an aged beauty and natural look that is a pleasing alternative to limestone, synthetic stone, marble slate, brick, glass, high grade paint, and stucco at a fraction of the cost. As with all products made using naturally occurring mined materials, attractive and characteristic ranges exist which enhance and add interest to the appearance of the walls.

With exterior use, the initial wall surface is enhanced by weathering, which brings out the natural beauty of the composite silica dioxide surface. The silica dioxide material is an extremely hard abrasion resistant mineral carefully selected for Spectra-Glaze® glazings and mined from deposits formed millions of years ago by the ice age. This is integral in the face. Inquire for detailed results of South Florida exposure and BRC Tests for UV. For most colors, change has been found to be minimal when rated in accordance with ASTM standards for glazed concrete block.

COLOR FASTNESS

The product has built-in light fastness and color change has been found to be minimal in South Florida field testing and in laboratory accelerated testing. It is also highly impervious to acid rain.

As with most materials, proper use, design and detailing are prerequisites. All colors show some slight change under continuous exterior exposure. As with other exterior materials, some gradual and uniform weathering is expected. Consult the local manufacturer plant or sales office for recommendations and performance data.

COLOR RANGE

Standard and Designer Colors are available ranging across the spectrum, including pastels, related deep tones, creams, white, heather and neutrals. VARITONE® Series earthtone finishes provide both a surprisingly similar appearance and economical and attractive alternative to natural materials such as granite, stone, marble, etc. Double-glazed units may be furnished with each face a different color. Other colors can be matched upon request.

TEXTURE AND SCALE

Spectra-Glazed® II Design Series and Scored Series units offer a wide selection of texture, scale and pattern. Design Series includes various rectilinear and curvilinear face designs in standard sizes. Scored Series provides the choice of reduced scale and pattern with economy of large 8 x 16 block, e.g., 8 x 8 score (DA1), 5 x 8 score (DA5), 4 x 8 score (DA2), and brick score (DA3). Other scores may be furnished on request. Score shall be ¼" deep, but consult local manufacturing plant for precise specification.

FINISH

At the time of delivery the product shall be free from chips, cracks, and pinholes in the finish wall when viewed at a distance of 5', at right angles to the wall. Manufacturer's patching compound may be used by the contractor or seller to correct minor job site damage or imperfections.

INTEGRAL BOND

The finished facing is manufactured as a permanent part of the block. The molded finish penetrates deep into the pores of the block and is heat treated for durability. It becomes an integral part of the unit that cannot be removed without destroying the concrete itself.

GRADE

Spectra-Glaze® II prefaced concrete masonry units are not graded. Units furnished to the project must meet Licensor's manufacturing tolerances and quality control standards, subject to sale terms and warranty terms of supplying licensed manufacture.

INTENDED USE

Standard construction detailing including dry construction, moisture and water protection, water stops, weep holes, elastic and durable mortar, flexible caulking of horizontal joints, metal or precast concrete caps, flexible control joints and drainage overhangs are a prerequisite of good design and proper use. Epoxy mortar thru-the-wall or equivalent, with horizontal joints and return edges raked and pointed with flexible exterior grade urethane or other durable caulk. Water proof flashing should be used under all capping. The preferred system is to cap off exterior walls with water proof flashing covered by precast slabs, metal capping or stone caps. This approach provides good structural design since it minimizes the number of horizontal cap joints that will be exposed to freeze thaw and stress from wall movement. Vertical expansion should also be used.

SURFACE BURNING CHARACTERISTICS OF FACING

ASTM E 84; flame spread less than 25; fuel contribution 0; smoke density less than 50. Products of combustion considered non-toxic as determined by BRC 4690 (toxicity testing).

TYPES

Plain, scored, engraved, embossed and/or sculptured faces; extent of each as shown.

GLAZED FACE SIZES & JOINTS

Modular 8 "x16", 4 "x16", 8 "x8", including 1 /4" exposed face joints; sizes as shown; long dimensions, horizontal or vertical as shown. Unless otherwise specified.

CONCRETE BLOCK FOR GLAZING

ASTM C 90 for hollow and solid load-bearing units; Type 1 (moisture controlled). For interior or exterior use. Upon request units can be manufactured using Integral Water Repellent (IWR) Dry Block II.

EXTERIOR USE

For enhanced durability, use Spectra-Glaze® units and water based epoxy grout or mortar enhanced with water based proofing systems.

HOURLY FIRE RATINGS FOR CONCRETE BLOCK

(define)

CONCRETE BLOCK SIZES BEFORE GLAZING

Modular; 2", 4", 6", 8", 10", 12" thickness as needed.

THROUGH-THE-WALL UNITS

Use pre-faced block thickness equal to nominal wall thickness where possible.

SHAPES

Provide shapes to suit the condition shown. Outside Corners are constructed at 91-93 degrees based upon Jamb Block Corner Angle.

JOINTING TOOLS

Use glass 5/8" for concave joints; clean, non-staining metal tools elsewhere. Replace worn tools promptly.

MORTARS

(define)

RELATED PRODUCTS

Provide setting mortar, horizontal wire reinforcing, ties and anchors and other accessories needed to properly complete the work.

WIPING RAGS

Select clean cotton waste or equivalent.

CLEANING COMPOUND

Use masonry detergent cleaners such as Vana-trol® by Prosoco in strict accordance with each manufacturer's directions. Do not use any product containing unbuffered hydrochloric acid or other unbuffered acids.

Part 3 Execution

Inspect related conditions; do not start at any location until all adverse conditions at the location have been corrected.

LIGHTING

Do no work without proper lighting.

FLOOR SURFACE

Test for straightness, levelness. Notify job superintendent where grinding or troweled filler corrections are needed.

ALIGNING BASE COURSE

Do not set base course to follow an inaccurate floor line. Layout at Corner must account for the fact that the Jamb Block Corner Angle varies from 91-93 degrees.

COVE BASE AT THIN FLOOR COVERINGS

Install weep holes and vents at proper intervals (32" O.C. and 2" long, above bed joints, typical) at courses above grade, above flashing, and at any water stops over windows, doors, and beams.

WORKMANSHIP

Align glazed faces plumb, level and true to line; uniform joint widths carefully tooled; joints arranged neat and symmetrical, cut units sized and located for best appearance; free of imperfections detracting from overall appearance when viewed at a 90 degrees from 20 feet and under diffused lighting.

CUTTING

For all cuts, including chases, holes and notches for pipes, switch boxes, etc., use saw and other power tools.

JOINTING

Except where tuck-pointing is noted, strike and tool setting mortar. Concave Mortar Joints are to be specified. Due to the oversized dimensions of a finished Spectra Glaze Unit Mortar Joint finished width will vary between 1/4" and 3/8".

When laying Spectra-Glaze® units, adjust raw block bed joints, head joints and coursing to assure alignment of glazed facings and uniformly wide mortar joints (approx. 1/4" exposed).

TUCKPOINTING

Rake out joints at least 1/4". Tuckpoint with the required mortar type. Do not use smeared grout method to fill joints.

SCORED-FACE BLOCK

Lay block in stack bond when aligned vertical joint appearance is required. Rake setting mortar 1/4" and allow to dry. Tuck point raked joints and scored joints at same time.

HORIZONTAL REINFORCING

Use in accordance with best practices for concrete block work and applicable building codes.

VERTICAL CONTROL JOINTS

Use in accordance with best practice for concrete block work.

EXTERIOR WEEP VENT INSTALLATION

Use weep vents at least 4" long in vertical joint for every second block in base course immediately above grade and immediately above flashing, bond beams, solid fill or other water-stop locations.

EXTERIOR WALL COPING

Use continuous metal with 6" minimum overhand, or maximum length stone or pre-cast (define flashing and overhand). Exposed joints must be raked back at least 1/4" and caulked with (define) flexible, waterproof sealant in accordance with manufacturer's direction.

KEEP GLAZE CLEAN

Wipe off all mortar smears and spatters at once, using clean, soft, damp rags. Do not allow hardening.

FINAL CLEANDOWN

Use industrial strength detergents in strict accordance with cleaner manufacturer's instructions, including thorough rinsing. Damp-dry with clean, soft rags. Do not use steel wool, other abrasives or any product containing unbuffered hydrochloric acid or other acids.

Maintenance

Spectra-Glaze® units, properly erected and cleaned after construction, should require very little maintenance other than normal cleaning procedures. Commercial cleaning agents such as pine oils or industrial detergents are recommended in most instances but some paints and special marking inks not soluble in usual cleaning materials may require special cleaning procedures. Contact your local representative.

Recommendations

Keep overhead lighting at least 3' from the plane of a masonry wall to avoid unsightly shadows.

Use flush mounted, full wythe modular door frames to ensure a neat appearance of masonry walls and reduce cost by deleting cuts and special shapes.

With scored units, broken bond patterns reduce the cost of installation.

With scored units, always use stack bond construction when stack bond appearance is selected.

Use double faced (ST) units through-the-wall only when tight bed depth tolerance or second face alignment is not mandatory.

Cavity wall construction (2" minimum cavity) should be used for all exterior walls, with weep vents (rather than weep holes or wicks) every 32" top, bottom and above all water stops for proper venting and control of water penetration.

For through-the-wall construction, glazed one side, use sled runner tool to strike joints on exposed block side of wall.

Strike concave joints in Spectra-Glaze® block walls with at least 5/8" jointing tool.

For exterior Spectra-Glaze® walls, always rake exposed mortar joints back 1/4" and tuckpoint with epoxy mortar or other waterproof systems.

For concrete masonry construction, use wall reinforcing and control joints in accordance with established procedures to accommodate wall movement and prevent wall cracking. See NCMA TEK bulletins 3, 44, 53.

Always consider a complimentary mortar color for use with decorative masonry units. Use factory-cut unit for mitered corners, for better alignment and reduced cost.

When laying Spectra-Glaze® units, adjust raw block bed joints, head joints and coursing to assure alignment of glazed facings and uniformly wide mortar joints (approx. 1/4" exposed).

Spectra Glaze® CMU are manufactured in accordance with ASTM C90 and C744 standards, and made from a mix design conducive to the thermoset process. Thus, the non-faced side of the glazed unit will have a variable texture. This texture differs from conventional grey and profile CMU. As in any CMU application it is recommended that the exposed CMU be painted with 2 coats applied block fill prior to desired finish paint system. It is recommended a painted sample be approved by the design team during submittal phase.

DOUBLE FACED BLOCKS

Double faced concrete masonry unit is a single concrete block with a glazed face on both sides. The use of double faced units affords significant cost savings — walls finished on both sides are completed in a single operation.

Please note the following limitations: Masons lay block or bricks to one side using a line. This means they are facing one side of the wall when the masonry product is placed and rendering them unable to see what the other side of the wall of the unit looks like. The mason can check the opposite side and make slight adjustments — but not major changes. If units are not aligned properly on the face side of the wall, the error multiplies substantially on the opposite side. This is amplified as the wall length increases. What is rather inconsequential on smaller wall lengths can become significant on longer lengths. Manufacturer accepts no responsibility for face alignment.

With the commonly used methods of laying masonry to one side of a wall, it can almost be assured one side will be better aligned than the other.

Use double-faced units only when economy is more important than finished wall appearance.

Scoring is not recommended for double face units as it will compound any alignment imperfections.