



PINE HALL BRICK

BUILD YOUR DREAMS.

2701 Shorefair Drive, Winston-Salem, NC 27105 | pinehallbrick.com | 1-800-334-8689

Facebrick Technical Information

Product line summary

- Authentic & simulated tumbled brick for the antique look. - Classic blended colors from red ranges to grays; sand & ongoe finishes. - Computer controlled production & in-house testing lab for "run to run" consistency. - Special Shape Brick for added design creativity. - Full Paver Line including **English Edge® & the "Old" Series.**

Specifications & performance

Madison Plants: Triassic shale raw material. Face brick far exceeds ASTM C216, Grade SW, Type FBS (Type FBA-tumbled & rockface brick) Modular face brick tests show: Average compressive strength: 15,030 psi Average Absorption: 4.2 % C/B Ratio: .59 Initial Rate of Suction: 9.8 grams / minute No efflorescence **MSDS** All pavers exceed ASTM C902 & C1272 plus application PX for tolerance: $\pm 1/8"$.

Specification:

2.01 Clay Masonry Units-Brick

A. All brick specified or shown on project documents shall be _____ as manufactured by **Pine Hall Brick Co., Inc., Winston-Salem, North Carolina.**

The product shall conform to the following:

1.) ASTM C-216, Grade SW, Type FBS. 2.) Dimensions (width x height x length). 3.) Minimum compressive strength of 12,000 psi. 4.) Test result showing no efflorescence.

B. Brick provided shall be similar in texture and physical properties to those approved samples available for inspection at the Architect/Engineer's office. In addition, brick provided shall not exceed the variation of color and texture of the approved sample.

C. Special shape brick shall conform to drawing #(s) _____ per details supplied by _____ and/or shop details by _____ with final approval by project architect prior to manufacture.

3.03 Bonding

A. Bond shall be running bond unless otherwise specified.

3.05 Tooling and Pointing

A. Tool mortar joints to a concave appearance unless otherwise specified.

3.09 Cleaning

A. Cleaning shall be performed per cube tag instructions. See BIA specifications in Technical Notes #20 and/or #14.

If you would like a complete sample specification for clay unit masonry or clay pavers, call 800-334-8689 and ask for Architectural Services. For paver specifications, see unit pavers-02780 Pine Hall Brick.

Brick tag information - Cleaning notices

Minimize cleaning: Keep brick covered with plastic; Keep mortar trowelings & droppings off brick; Spread straw around the foundation to keep dirt off wall.

Work out of several cubes at once to insure a well blended wall.

Only tool with a metal jointer. Do not tool with brick.

Clean brick as you go with a dry brush or next day with a brush and water.

If performing delayed cleaning, follow these rules: **Do not use muriatic acid.** *We recommend SureKlean 600, Deidrich 202, EaCoChem NMD80 or equivalent with a proper dilution factor of 6 to 8 parts water for the 600 and 202 cleaners and 4 parts water with the NMD80 cleaner. When cleaning a wall with light and brown colored brick and walls with colored mortar, use NMD80, Vanatrol, Deidrich 202-V or equivalent. Always test on a small hidden portion of the wall. Pre-wet wall thoroughly before cleaning and rinse after with clean water. Pressure washers with above mentioned cleaners can be used provided application pressure is limited to 30-50 psi and a 50 degree fan tip is used. Rinse pressures should not exceed 200-300 psi. Do not clean Chesapeake Pearl, Stoney River or Vienna brick colors with acid cleaner or any other proprietary cleaners that contain acids.*

Efflorescence

Efflorescence is a crystalline salt deposit on the surface and in the pores of concrete, masonry, and other building products. A phenomenon reported as early as the 1870's and much studied since, it can appear as sulphate and carbonate compounds of sodium, potassium, calcium, magnesium and aluminum. Chlorides may also occur as efflorescence. This is usually a result of the use of calcium chloride as a mortar accelerator, contamination of masonry components (including sand) by sea water or the improper use of hydrochloric acids in cleaning solutions.

There are several sources for efflorescence: 1) the movement of groundwater that moves upwards, by capillary action or "wicking", into masonry or concrete materials. 2) salts in the soil that are in contact with paving can migrate above grade. 3) natural-state salts that are found in mortar, concrete or other building products. Although rare, some raw material used to make clay brick contain small amounts of salt. However, these small amounts are minor compared to studies that found two to seven times as much soluble material in concrete products versus fired clay material. *W.E. Brownell concluded in his research study that the most common form of efflorescence comes from the "migration of 'free-alkali' solutions from the mortar to the brick" (applicable to rigid paving applications).*

Efflorescing salts dissolve in water and are absorbed into the masonry pores. Typically, clay bricks can absorb 5% to 8% of their weight in water. Heat from the sun (or other source) begins to draw the moisture to the wall surface and as the water completely evaporates, the salt deposits are left on the surface.

Since humidity and moisture play a key role in the efflorescence process, some areas of the country will be effected more than others. Seasons will play a role as precipitation typically is heavier during season changes and will increase the likelihood of efflorescence.

The most important solution to solving efflorescence in a veneer wall is finding, locating and dealing with the source of water that is seeping behind the finished wall. The following conditions are potential sources:

- lack of proper flashing and weepholes - poor foundation details - poor bond between brick and mortar - partially filled head joints - use of poor quality mortar - use of raked or scratched head joints - excessive mortar droppings in cavity

As a general rule, the removal of efflorescing salts from the face of masonry is relatively easy operation.

Efflorescing salts are water soluble and generally will disappear on their own with normal weathering as the free

salts dissipate from their source. This is particularly true of "new building bloom". White efflorescing salts can be removed with dry brushing or with clear water and a stiff brush. Heavy accumulations or stubborn deposits may require the use of special cleaners like Sure Klean products. If used, always follow the manufacturer's directions and start with a non-visible test area. Never use muriatic acid as damage to the mortar joints and wall can result, in addition to severe staining in some cases. For further reference, see BIA Technical Notes- 23, 23A, 20. Sure Klean & VanaTrol cleaners are manufactured by ProSoCo, Inc., Kansas City, KS. Other cleaners from different manufacturers are also available.

Notices and warnings

Important notice: If upon delivery the shipment fails to meet color and quality standards, the manufacturer is to be notified. If notification is not received within 48 hours after shipment, product is deemed satisfactory. In no case does the manufacturer assume any responsibility after material is erected in the wall. Manufacturer disclaims any and all responsibility for improper cleaning.

WARNING: Limit inhalation of clay dust. When cutting/sawing; use wet methods, perform outdoors or in well-ventilated area, and use respiratory protection. Do not eat, drink, or smoke when handling this product, and wash hands after. Contaminated clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection

FIRST AID: IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. IF exposed or concerned, or IF you feel unwell, or IF eye irritation persists or IF skin irritation or a rash occurs; THEN get medical advice/attention. Take off contaminated clothing and wash it before reuse.