

FIBERGLASS REINFORCED

Q-BOND®

BUILD BLOCK WALLS WITHOUT MORTAR

PROJECTS

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HOW TO USE Q-BOND TO BUILD WITHOUT MORTAR

A wall built with Q-BOND is stronger both laterally and vertically than a conventionally mortared wall.

Q-BOND is an alternate to the mortar system. Use conventional building techniques and follow local code requirements.

FIRST COURSE

Level the first course of block in mortar without mortaring between blocks. Leave necessary openings for doors if the structure is on a ground level slab. After the first course is set, stack the walls.

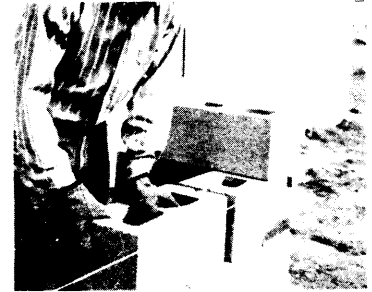


STACKING THE WALLS



If the blocks have burrs or loose particles, rub blocks together or scrape them.

Start by stacking blocks three courses high at the corners. Using a mason's line from corner to corner, stack blocks to the line in a running bond pattern.



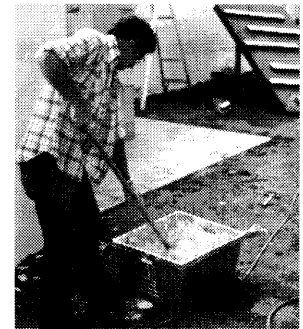
Check corners and face of walls with a level. Stack blocks between corners, always snugging blocks together. Insert wooden frames to maintain correct size openings for windows and doors.

If necessary shim with sheet metal, sand or Q-BOND. A perfectly smooth wall is not necessary because Q-BOND will hide the block lines and many irregularities, especially if a rough finish is applied.



MIXING Q-BOND

Using a wheelbarrow (or mortar mixer) put in 1 1/2 gals. of water. Pour in 50 lbs. bag of Q-BOND mixing with spading fork, hoe or other mixing tool. Break up all lumps. Slightly more water may be needed to get a pasty (but not runny) mixture. A small amount of water may be added up to 30 minutes after mixing if mixture begins to thicken. A 50 lbs. mix will be used in about an hour by one person. Mix that becomes unworkable should be discarded and not added to another batch.



APPLYING Q-BOND



The block walls should be wetted well, but not soaked, before applying Q-BOND. This prevents the dry block from absorbing water from the bonding mixture. In a dry climate, walls will need to be wetted again if water evaporates. Q-BOND should be applied when the surrounding temperature is between 40° and 100° for 24 hours following application. Apply Q-BOND with a trowel, 1/8" thick, using upward strokes and sweeping in a diagonal direction, covering the block and joints. Q-BOND must be applied to BOTH SIDES of the wall.*

Q-BOND is easy to apply and sticks to the wall as you apply it. Excessive troweling, pressure, or troweling as mixture dries should be avoided. As in painting, stop at natural breaks such as doors, windows, or corners.

CURING

Q-BOND will gain much of its strength within 24 hours. The bonded surface should be dampened with a fine spray occasionally during the 48 hours following application, particularly under dry climatic conditions. In cold weather, keep the bonding from freezing during the first 48 hours. Necessary precautions in covering to protect the surface from freezing or drying too fast should be taken under extreme conditions.



ADDITIONAL USES

Q-BOND. ON

CONVENTIONAL MASONRY WALLS

Q-BOND is a "structural" coating, thus, when you wish to restore or renovate old block, brick or poured in place concrete walls, you're not only applying a decorative finish, you're adding new *strength* to the wall.

OLD BLOCK BUILDINGS - Use the standard application of Q-BOND in the same manner as if the building were dry-stacked construction. One word of caution, *Q-BOND will not bond to painted surfaces.* You want a clean block wall surface, free of all foreign materials.

OLD BRICK BUILDINGS - Use the standard application of Q-BOND plus 1 quart of Q-STIK bonding adhesive per one 50# bag of Q-BOND. The addition of bonding adhesive is necessary because brick masonry walls do not have the same rough surface found on block masonry walls. You want a clean brick wall surface free from paint and other foreign materials.

PATCHING - PREPARATION: Clean surface thoroughly from all loose material, dirt, grease, etc. Dampen surface with clean water and remove any excess before patching. **MIXING:** Add 1 pint of clean water for 10 lbs. of product, bonds by itself. Let stand for 5 to 10 minutes, restir and use. Add additional water, if needed. Addition of concrete glue may be required in certain applications. **PLACING:** Firmly place Q-BOND Stucco Patch into patch area. Level with trowel or screed. For deep fill areas, apply a stiff mix in $\frac{3}{8}$ " layer maximum allowing 2 hours drying time between layers. **FOR BEST RESULTS:** Keep patched area damp for at least 24 hours. Do not use where temperature is below 50°F. Clean all tools with water immediately after use. Paint may be applied after 1 week of curing. **COVERAGE:** 10 lbs. of Q-BOND Stucco Patch will cover 10 sq. ft., $\frac{1}{8}$ " thick.

EDITOR'S NOTE: It is an excellent idea to try a "Test Patch" on all old buildings prior to starting the project. In that way you can be certain you've prepared your old building surface and that your Q-BOND coating will bond properly.

Q-STIK

BONDING ADHESIVE

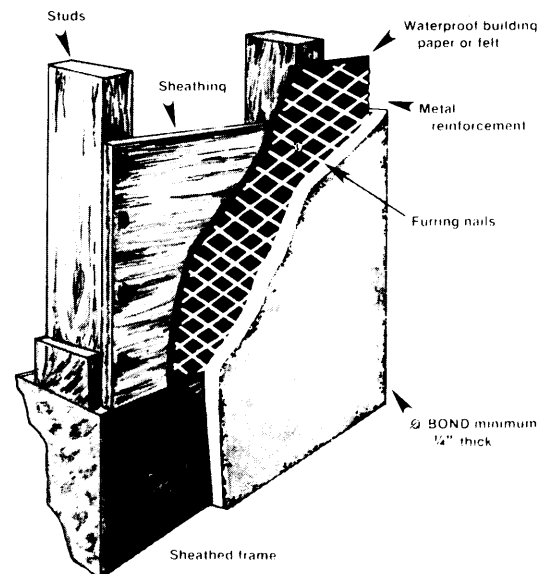
Q-STIK is a special acrylic polymer formulation designed to be used as an admixture in Portland cement-based mixtures. The addition of Q-STIK will aid in the bonding of cementitious materials to concrete, wood, stone, foam, and metals. This tough, internally plasticized admixture will retain strength and flexibility with age. Q-STIK dries clear and is not re-emulsifiable.

Q-BOND.

STUCCO IN ONE STEP

Because Q-BOND is "structural" you can use one coat of Q-BOND instead of the conventional three coat plaster or stucco applications. You need only apply enough Q-BOND to cover (hide) the plaster mesh.

SHEATHED FRAME CONSTRUCTION



CODE APPROVALS

F.H.A. 970
MESA IC-17

DESIGN DATA

Shear stress Not to exceed 10psi on gross area
Tensile stress in flexure Not to exceed 18 psi on gross area
Lateral support Same as in ANSI 41.1
Comprehensive stresses Not to exceed 50 psi on gross area

TEST RESULTS *

		NCMA Structural and water tests		Ohio State University fire tests	
		COMPRESSION (ASTM E - 72)			
8" Wall	Q-BOND Thickness	Results	Percent Conventional		
Q BONDed Type S Mortar	.10	308 psi	57		
		540 psi	100		
		FLEXURAL (ASTM E - 72)			
Q BONDed Type S Mortar	.10	47 lb/ft ²	164		
		29 lb/ft ²	100		
		BEAM - Third Point Loading (ASTM E - 72)			
Q BONDed	.09	340 psi			
		RACKING (ASTM E - 72)			
Q BONDed Type N Mortar	.10	4170 lb/ft	140		
		2970 lb/ft	100		
		FIRE RESISTANCE * * (ASTM E - 119-73)			
Q BONDed	Thickness	Block wt.	Duration of Test	Rating	
	.11	94.3 lbs/ft ³	2 hr 6 min	2 hr	
		WATER RESISTANCE (F.S. TTP - 0035)			
Q BONDed	Wind Velocity	Thickness	Duration of Test	Water Penetration	Rating
	98	.10	8 hrs	0	Excellent

* Research reports available on request * * Also passed double loading of 100 psi and hose stream test

STRUCTURAL DATA

A concrete block wall, dry stacked in a running bond pattern is stronger both laterally and vertically than a conventionally mortared wall when it is coated on both sides with Q-BOND fiberglass reinforced surface bonding cement.

Racking tests, which measure the ability of a wall to withstand shear forces such as earthquakes, indicate that a Q-BOND surface bonded wall is stronger than a conventional mortared wall.

When a concrete block wall is coated with Q-BOND fiberglass reinforced surface bonding cement, the coating becomes an integral part of the block itself and greatly increases the strength of the wall against shock or impact.

ENVIRONMENTAL DATA

Fire tests indicate that an eight inch masonry wall that has been Q-BONDED has a two hour fire rating. Q-BOND is non-combustable, won't support a fire and emits no toxic gasses.

In a Federal Standard simulated wind driven rain test a Q-BONDED wall withstood a velocity of almost 100 miles an hour without water penetration into the wall itself.

COVERAGE

A 50 lb. bag of Q-BOND will cover approximately 50 square feet when applied 1/8 inch thick. The area covered will be influenced by the application as well as the texture of the blocks. A good estimating figure for your project is approximately 35 square feet.

STORAGE AND PACKING

Q-BOND is a 50 lb. dry mix in a 3 ply kraft paper bag with inside free-film polyethylene ply for moisture protection. The shelf life is one year when stored in a dry place.

SHORT FORM SPECIFICATION FOR MORTARLESS CONSTRUCTION

The first course of concrete masonry units shall be laid in a full bed of mortar or Q-BOND, but without mortar between the blocks. Starting with the second course, all blocks will be stacked, without using mortar, in a running bond pattern. Q-BOND shall be applied to both sides of the block, covering the block and joints to a minimum thickness of 1/8 inch according to instructions on the Q-BOND bag.



Q-BOND
1519 Center Drive
Santa Fe, New Mexico 87505
505-438-8166