



## Mixing & Placing Mortar

## Mixing Mortar – Mixing Methods

QUIKRETE® mortar mixes can be successfully mixed by hand or machine mixed.

Hand mixing can be done in a mortar tub or wheelbarrow with a shovel or hoe.

When machine mixing mortars, a mortar mixer should be used (not a barrel type mixer). Mortar mixers are designed for fine sand mixes and utilize rotating blades inside a stationary tub.

*Note: rubber gloves and safety glasses should always be used during concrete and mortar mixing and placing procedures*



## Mixing Methods: Hand Mixing Mortar

1. When hand mixing mortar empty the mix into a mortar tub or wheel-barrow.
2. Form a depression in the middle of the mix.
3. Measure the recommended water amount and pour approximately 2/3 of the water into the depression.
4. Work the mix with a hoe, gradually adding water, until the mix reaches a uniform, workable consistency.



## Mixing Methods: Machine Mixing Mortar



1. When machine mixing mortar mixes it is important to add the water to the mixer before adding the dry mix. Typical mixers can hold up to three bags of 80 lb mortar mix.
2. Measure the recommended water amount for the number of bags to be added to the mixer and pour half of the water into the mixer.
3. Turn the mixer on and add the dry mix into the mixer. Allow to mix for about a minute and then add the remaining water as necessary.
4. Mix for 3-5 minutes, until a uniform, workable consistency is achieved. Turn off the mixer.



## Machine Mixing Mortar (cont'd)

Allow the mortar to sit undisturbed for 3-5 minutes. This will allow the fine aggregate in the mix to fully saturate (most aggregates are porous; like a rigid sponge). If this step is not followed the mortar can quickly become firm and unworkable.

If additional water is needed, add small amounts of water sparingly and mix for another 3 minutes.

Do not re-temper (add extra water) after the mortar has begun to set. Re-tempering can cause excessive shrinkage and reduces the strength of the mix.



## Mixing Mortar - Mortar Consistency



When preparing to place a trowel full of mortar gently “snap” the trowel downward to remove any excess mortar. The proper consistency is achieved when the wet mortar will “hang” on a trowel held at a 90° angle.

## Placing Mortar - Building a Block Wall

Prior to laying the first block it is important to stage the first course of block, leaving a 3/8" gap between the blocks to allow for the vertical mortar joints. Snap a chalk line as a reference line on each side of the block wall.

Dampen the footing surface with water and place a 1" bed of mortar on the footing. Furrow the mortar bed using the tip of the trowel to create a "v" to help distribute the mortar evenly. The mortar should be firm enough to support the weight of the block.



## Building a Block Wall – Setting the First Course

Butter the inside end of the first block and then press the block into the mortar to create a 3/8" mortar joint. Make sure the block is level and properly aligned before proceeding to the next block. Trim and remove any excess mortar.

Using the same process, set the opposite corner block. Use a mason's string flush with the top of the corner blocks to establish a guide for the remaining blocks on the course.





## Building a Block Wall

Place a mortar bed for the next block on the first course. Butter one end of the block and set it next to the corner block. Press the block down into the mortar bed and against the previously laid block so that the mortar joint is  $3/8$ " wide. Adjust the block so that is flush and level. Apply a 1" thick mortar bed for the next course of block.

Set a half block into the mortar bed at the end of the wall with the smooth side facing out. If the wall has a corner, use a full-size block to span the vertical mortar joint. This process will create a very strong running bond pattern that "ties" the wall together.



## Building a Block Wall (cont'd)

Use a mason's line as a guide for the remaining block. Continue building the wall until it is complete.

Strike (smooth) the fresh mortar joints with a jointing tool once they become "thumbprint" hard and remove any excess mortar. Tool the horizontal joints first and then the vertical joints.

For load-bearing walls, tie rods (vertical rebar) should be set a minimum of 6" into the concrete footing before it is set. Rebar should be placed in every other masonry core to provide structural support. For masonry cores over 4" wide, QUIKRETE® Core Fill Grout – Coarse should be poured around the rebar. For masonry cores under 4" wide, QUIKRETE® Core Fill Grout-Fine should be used.



## How to Build a Block Wall



Click tv screen to play video

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