

Working With Mortar



Throwing mortar is a quick, smooth technique that requires practice. Load the trowel with mortar, then position the trowel a few inches above the starting point. In one motion, begin turning your wrist over and quickly move the trowel across the surface to spread mortar consistently. Proper mortar-throwing results in a rounded line about 2½" wide and about 2 ft. long.

Handling mortar is a skill you'll need when working with stucco, brick, veneer stone, or concrete block. Although "throwing mortar" is an acquired skill that takes years to perfect, you can use the basic techniques successfully with just a little practice.

The first critical element to handling mortar effectively is the mixture. If it's too thick, it will fall off the trowel in a heap, not in the smooth line that is your goal. Add too much water, and the mortar becomes messy and weak. Follow the manufacturer's directions, but keep in mind that the amount of water specified is an approximation. If you've never mixed mortar before, experiment with small amounts until you find a mixture that clings to the trowel just long enough for you to deliver a controlled, even line that holds its shape after settling. Note how much water you use in each batch, and record the best mixture.

Mix mortar for a large project in batches. On a hot, dry day, a large batch will harden before you know it. If mortar begins to thicken, add water (called retempering). Use retempered mortar within two hours.

Everything You Need

Tools: mason's trowel, masonry hoe, shovel, mortar box.

Materials: mortar mix, plywood, blocks.

Selecting the Right Mortar

Masonry mortar is a mixture of portland cement, sand, and water. Ingredients such as lime and gypsum are added to improve workability or control "setup" time. Every mortar mixture balances strength, workability, and other qualities. The strongest mortar is not always the best one for the job. A mortar that's too strong won't absorb stresses, such as those that occur as temperatures rise and fall. The result can be damage to masonry structures.

Always follow the guidelines for your project and the materials you've selected, and read the manufacturer's specifications on the mortar mix package. The information below indicates the typical uses for the most commonly sold mortar mixes. Type N mortar mix is called for most often because it offers a good blend of strength and workability.

Types of Mortar & Their Uses

Gone are the days when do-it-yourselfers had to mix mortar from scratch. These days, when you think of mortar, think of mortar mix, the standard term for the dry, prepackaged mixes available at home centers. For most of today's projects, simply select the proper mortar mixture, mix in water, and start to trowel. For some repair projects, adding a fortifier may be recommended. You can also tint your mortar to match your other materials.

Type N

Medium-strength mortar for above grade outdoor use in non-load-bearing (freestanding) walls, barbecues, chimneys, soft stone masonry, and tuck-pointing.

Type S

High-strength mortar for exterior use at or below grade. Generally used in foundations, brick and block retaining walls, driveways, walks, and patios.

Type M

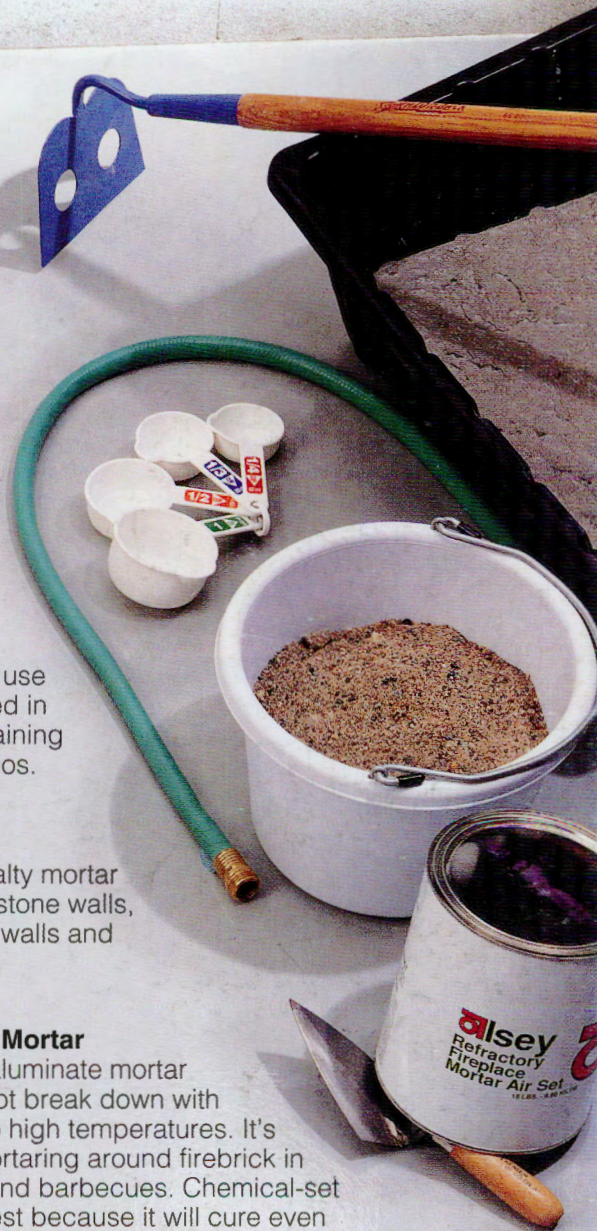
Very high-strength specialty mortar for load-bearing exterior stone walls, including stone retaining walls and veneer applications.

Refractory Mortar

A calcium aluminate mortar that does not break down with exposure to high temperatures. It's used for mortaring around firebrick in fireplaces and barbecues. Chemical-set mortar is best because it will cure even in wet conditions.

Glass Block Mortar

A specialty white Type S mortar for glass block projects. Standard gray Type S mortar is also acceptable for glass block projects.



How to Mix & Throw Mortar



TIP: Don't mix too much mortar at one time. Mortar is much easier to work with when it's fresh.

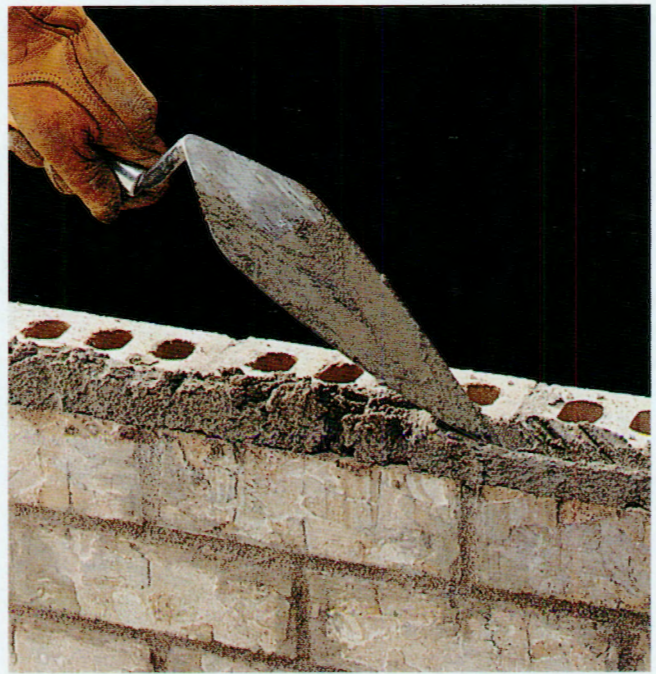
1 Empty mortar mix into a mortar box and form a depression in the center. Add about $\frac{3}{4}$ of the recommended amount of water into the depression, then mix it in with a masonry hoe. Don't overwork the mortar. Continue adding small amounts of water and mixing until the mortar reaches the proper consistency.



2 Set a piece of plywood on blocks at a convenient height, and place a shovelful of mortar onto the surface. Slice off a strip of mortar from the pile, using the edge of your mason's trowel. Slip the trowel point-first under the section of mortar and lift it up.



3 Snap the trowel gently downward to dislodge excess mortar clinging to the edges. Position the trowel at the starting point, and "throw" a line of mortar onto the building surface. A good amount is enough to set three bricks. Don't get ahead of yourself. If you throw too much mortar, it will set before you're ready.



4 "Furrow" the mortar line by dragging the point of the trowel through the center of the mortar line in a slight back-and-forth motion. Furrowing helps distribute the mortar evenly.

Tips for Using Mortar with Stone



TIP: If mortar dries too fast, strength is compromised. Cover mortared surfaces as soon as you finish a section, and keep covered for 48 hours. In hot, dry weather, lift the plastic occasionally and mist the surfaces with a fine spray.

Mortar-set stone projects require more mortar than similar projects using brick or block because stones have highly irregular surfaces. Butter the mating surfaces of stones generously to fill in the peaks and valleys in each stone's surface.



Practice buttering stones so that each buttered surface fills the gap between one stone and the next. If the mating (adjoining) surfaces are highly contoured, butter both surfaces. You can also use the trowel to create a mound (above) or a depression to conform to the shape of the adjacent stone.

Tips for Special Mortar Treatments



Adding tint to mortar works best if you add the same amount to each batch throughout the project. Once you settle on a recipe, record it so you can mix the same proportions each time.



Use a stiff (dry) mix of mortar for tuck-pointing—it's less likely to shrink and crack. Start by mixing Type N mortar mix with half the recommended water. Let the mixture stand for one hour, then add the remaining water and finish mixing.