

1-2-3MORTAR

Modified Portland cement based mortar, to be used to adhere any prefabricated construction elements

Data Sheet

DESCRIPTION

1-2-3MORTAR is a ready to use commercial grade mason mix used for bonding prefabricated construction elements. Its unique delivery system helps to obtain its outstanding workability, convenience and simplicity of preparation and use. These attributes make this product a preferred solution for any masonry project. Its superior strength allows for thinner joints. Just add water.

USES AND APPLICATIONS

1-2-3MORTAR characteristics make it ideal to be used on:

- ✓ Concrete block
- ✓ Bricks
- ✓ Clay pieces
- ✓ Pavers
- ✓ Other similar masonry elements

BENEFITS

- ☑ Ready-to-use, just add water
- ☑ No need for additional tools, material is applied directly from the package
- ☑ Substantial waste reduction
- ☑ No cleaning of tools or jobsite
- ☑ Optimum workability and adherence
- ☑ Quality control on all production processes
- ☑ Concentrated strength in a smaller joint; much less material is needed

TECHNICAL INFORMATION

1-2-3MORTAR qualifies as Mortar Type M as it complies with the standard ASTM test:

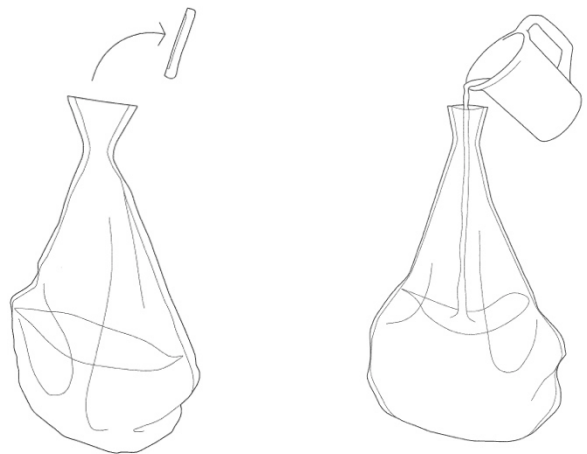
		Current specification ASTM C387-06a		
		Mortar Type N	Mortar Type S	Mortar Type M
Compressive strength, 28 days	3240 psi	750 psi min	1800 psi min	2500 psi min
Water retention	95%	75% min	75% min	75% min

Test ran by NCMA (National Concrete Masonry Association)

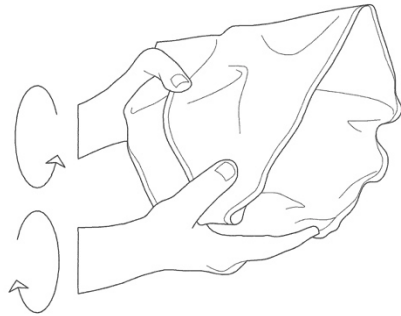
PREPARATION INSTRUCTIONS

1. Use clean, fresh water. Add 16.9 oz (500 mL) of water to the 11.3 lb bag, or 8 oz (243 mL) to the 5.5 lb bag, making a cut in the upper limit of the bag. Make sure water flows freely through the neck.

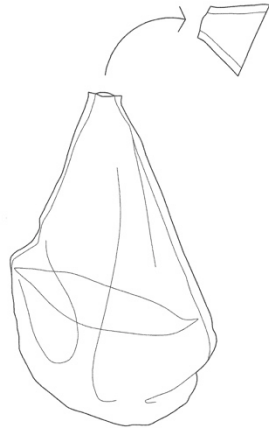
Allow water to absorb for 3-5 minutes.



2. Start manual mixing that will take around 3 min. The product must be mixed directly in its plastic bag, making sure that all lumps are dissolved and you have a ductile flowing mass, or smooth consistency. To prevent material flowing out during the mixing process, simply fold (or twist) the tip of bag between your fingers.



3. Cut in the narrowest part of the neck to obtain 1/8" joint. This cut will determine the desired diameter of the cylindrical bed to be applied to the piece (or CMU).



Test the material consistency by extruding a few inches on a flat surface. The mix should flow easily and the cylindrical body surface laid should be continuous and smooth. If material is difficult to extrude or texture is not smooth, a small amount of water can be added to adjust mix. Additional water should not exceed 1 oz (or 29 mL).



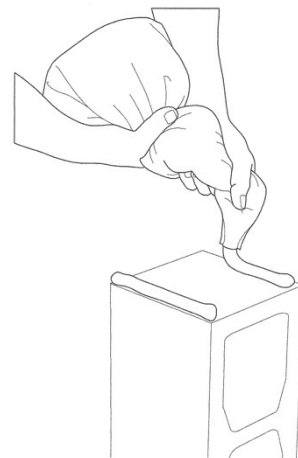
Be sure to prepare just the amount of material (bags) that you would be able to apply within a 90 to 120 minute time frame. Already-mixed material could become dry and unmanageable beyond that time.

After the material has been extruded out of the bag, it should be confined between two masonry units in no more than 10 minutes. Dry and hot weather could accelerate material hardening.

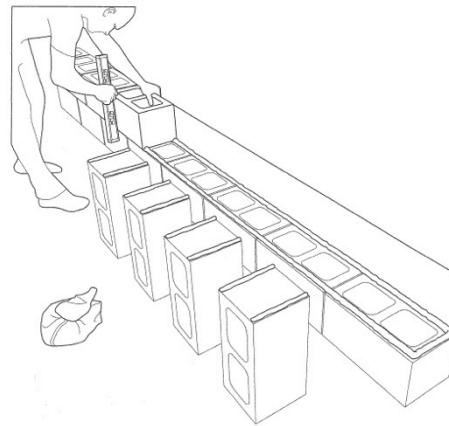
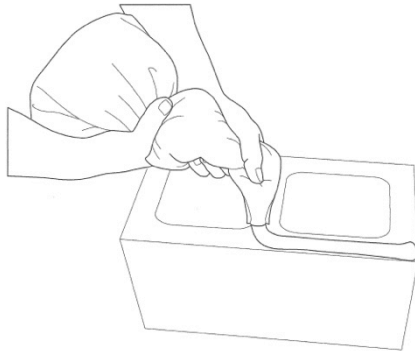
Surfaces that will receive the material should be free of excessive dust or other contaminant elements.

APPLICATION INSTRUCTIONS: standard concrete block single unit

- ☑ Before laying a block piece, apply two mortar beds on the head of the block—the vertical surface that should be joined laterally to the previous unit. The center of the mortar cylinder should be around 0.5" (12mm) from the edge.



- ☑ Apply one single body of mortar on the upper surface of each of the two longer walls of the block. The center of the mortar cylinder should be around 0.5" (12mm) from the edge.



APPLICATION INSTRUCTIONS: a course of standard concrete blocks

1. For the first course of block, apply two or more beds of material over surface footing. You need just enough mortar to make sure that surface irregularities can be adjusted to level out the first course. The use of plastic or metal levelers is recommended for highly irregular surfaces.

2. Once the first course is laid, apply two continuous beds of material along the top length of the blocks (see figure 5). You should cover as much of the length of the course as possible, per extrusion, to improve productivity.

Note: The next course of blocks should be installed within 10 minutes, to avoid material hardening. This time frame can vary depending on temperature and humidity.

3. The blocks that will be installed for the next course should be placed on the floor along the length of the wall, head up, approximately 2 ft. apart (see figure 6).

Apply the mix on the head of the blocks (see figure 4).

This way, once the first of these blocks is installed, you may advance along the length of the wall to easily find the next units to be laid, ready for bonding laterally to the previous piece or CMU.

Once you finish with the above course, repeat steps 2 and 3.

- ☑ The joint between blocks will be to be smaller than with traditional mortar, given its superior strength. **A 1/8" joint is recommended.** You will have a better vertically aligned wall having avoided a thicker joint that could be a source of error.

Any joint adjustments you may need to comply with standard wall openings are detailed as an annex to this data sheet (see Appendix "A").



APPLICATION INSTRUCTIONS: other prefabricated elements

- ☑ Units different than concrete block should receive an adequate amount of mortar to be bonded to surrounding surfaces. Since there is a vast number of sizes, shapes and dimensions, we recommend to run a test in order to determine: a) the amount of material the pieces or units should receive and b) the best procedure to apply **1-2-3MORTAR**.

YIELD one bag of 1-2-3**MORTAR**

	5.5 lb bag	11.3 lb bag
Standard 8" block	15 blocks*	30 blocks*

* Could present variations depending on block dimensional uniformity and installation practices.

PACKAGE

1-2-3**MORTAR** has two different presentations available: 5.5 lb and 11.3 lb plastic bags.

STORAGE

1-2-3**MORTAR** should be stored in its original plastic bag package: hermetically closed, protected from any humidity contact, over an adequate pallet.

The product has a storage life of approximately 5 months if stored under proper conditions.

WARRANTY

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made given that we cannot cover every possible application of our products, and anticipate every variation encountered in masonry surfaces, job conditions and method used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

Innovative Mortar Solutions, Inc. ("Company") warrants this product to be free from defect in manufacture and of merchantable quality and condition when used and applied as indicated in instructions included herein. This product is for construction use only and is not warranted for purposes other than for what it is intended. In the event of failure due to defect in material and manufacturing (proven), the Company will, upon proof of purchase, refund purchase price or replace at its own discretion. Warranty is not applicable if product is subject to misuse, abuse or alteration. Claims under this limited warranty must be sent to Innovative Mortar Solutions, Inc. in writing. This limited warranty is issued and accepted in lieu of all other express warranties and expressly excludes liability for consequential damages.

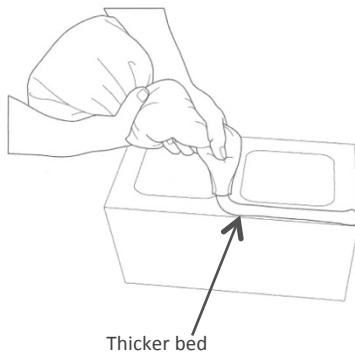
(Next page: Appendix "A" for Specific Joint Adjustments)

APPENDIX A: JOINT ADJUSTMENTS

HORIZONTAL JOINT ADJUSTMENT

- ☑ Horizontal joints can be adjusted in a very similar way to traditional practice. An additional amount of mortar can be placed to get a wider joint. If the needed joint is from **1/8" to 1/4"** you can place a second bed of material above the first, position the CMU in place, and adjust width to desired dimension.

- ☑ For joints from **1/4" to 3/8"**, the recommended practice is to diminish the amount of water in the bag in order to get a firmer texture for the mortar bed. This will allow for the joint to set firm when supporting the unit's weight. You may also need to cut at the bag's neck an inch lower from the narrowest area to get a thicker mortar bed.



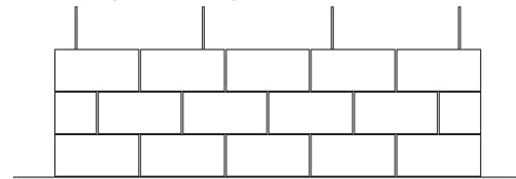
- ☑ Another practical way to produce a **3/8"** joint is to use block spacers: these plastic or metal pieces are widely used and help to keep a uniform joint dimension. You simply place the spacers as manufacturers recommend, and place enough mortar over the piece, making sure that the height of the mortar bed surpasses the block spacer. This will assure that when the upper block is placed, all space between blocks is filled with mortar. Please see block spacers' manufacturer recommendations for additional information.



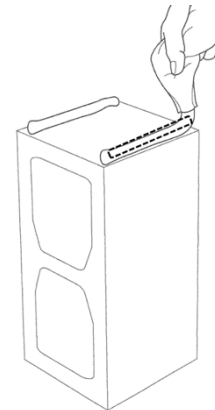
Concrete Block and Brick Spacers

VERTICAL JOINT ADJUSTMENT

- ☑ Vertical joints can be adjusted in a very similar way to traditional practice. An additional amount of mortar can be placed to get a wider joint.

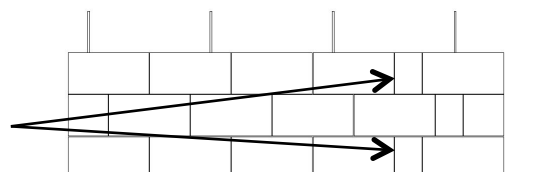
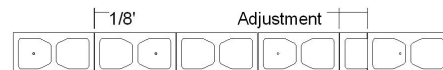


- ☑ If the needed joint is from **1/8" to 1/4"** you can place a second bed of material above the first, position the unit in place, and adjust width to desired dimension.



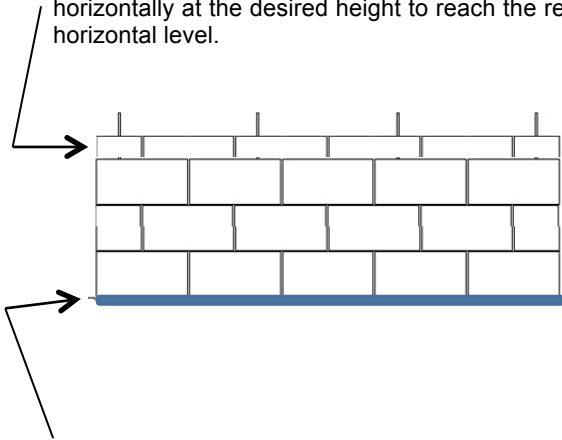
- ☑ For joints from **1/4" to 3/8"**, the recommended practice is to position the CMU in place at the desired joint dimension and then fill the open joint space with material placing the tip of the bag almost inside the joint to fill the space with a vertical filling movement.

- ☑ Wider adjustments are performed by cutting a segment of CMU to reach the desired dimension.



WALL HEIGHT JOINT ADJUSTMENT

- ☑ Wall heights can also be adjusted in a similar way to the traditional practice. A piece of CMU is cut horizontally at the desired height to reach the required horizontal level.



- ☑ First course leveling is performed through additional mortar beds (or a thicker mortar bed through a wider bag tip orifice)—if base irregularities are not too deep. If base surface is deeply irregular, the commonly used height adjusting plastic levelers can also be used.