Jahn M150 Casting Mortar

Jahn M150 is a specially formulated dry-pack mortar designed for casting replacement pieces that can be custom colored to match original masonry. It is ready for use after only two days of curing, making it ideal when a “like-kind substrate” is required but the original material is too costly or time-consuming to produce. M150 is recommended in place of patching when the repair is considered too risky, complex, or impractical to achieve with patching alone. It provides fine replication of detail with authentic masonry texture and is formulated to replicate the appearance of natural stone, terra cotta, or architectural concrete. This cast-stone quality mortar is completely mineral-based, free of latex or acrylic bonding agents, and offers exceptional durability with high resistance to freeze-thaw cycles.

Features and Benefits

- Single-Component: Mixes with water only, improving quality control and consistency of application.
- Contains No Latex or Acrylic Additives
- Factory Controlled: No field chemistry resulting in product variation.
- Custom Colored Upon Request: Closely matches existing masonry. Choose from Standard or Custom Colors.
- Dry Pack System: Stronger, denser castings eliminate air voids and produce higher quality reproductions.
- Highly Resistant to Carbonation: Superior long-term, reinforcing steel protection.

Casting Procedures

Preparation

Prior to packing the mold, a non-staining mold release should be applied to all surfaces, making sure to treat undercut areas well.

Exposed Ferrous Metals

In the event that ferrous metal reinforcement (re-bar, threaded rod, etc.) is exposed within the repair area or repairs are adjacent to ferrous metal jambs, lintels, anchoring systems etc., a rust inhibitor must be applied to all properly prepared ferrous metal surfaces before repairs are made.

Mixing

The mixing ratio is approximately 7 parts powder to 1 part water by volume, depending on temperature and humidity. More water may be required as ambient temperature rises. The mixing may be done by hand, stirring until the mortar is thoroughly mixed. The mortar should be the consistency of damp sand. Drier mixes will have a stone-like finish; wetter mixes will have a smooth, concrete finish. M150 may also be mixed using a slow speed drill (400 -600 rpm) equipped with a Jiffler-type mixing paddle. For best results, add the powder to the water slowly. The working time will vary, depending upon wind, temperature, and humidity.

Casting

Clean the mold of all foreign material, which could cause imperfections. Coat the mold with a non-staining release agent. Scoop approximately 1/3 of the mixed mortar into the mold and tamp it firmly. Press the initial application into place by hand, making certain to completely fill intricate detailing and undercut areas. As the build-up of material proceeds, tamp mortar repeatedly to consolidate. Compaction may be performed using wood tamp and a mallet. Proper compaction is essential for sharp edges. Repeat the process until the mold is slightly overfilled.

Once filled and firmly compacted, screed excess material. This should produce a flush surface with the top of the mold. Cover casting with plastic sheeting for approximately 24 hours.

Curing

After the initial 12-24 hours has elapsed, uncover the mold and pour clean, potable water into the cast until the point of rejection. Cover mold with the plastic. Remove cast from the mold after an additional 24 hours have passed.

IF CASTING WITH M70 LIMESTONE, SANDSTONE, OR BROWNSTONE, THE FINAL CURE TIME MUST BE INCREASED TO 72 HOURS.

Color

Jahn M150 mortar can be custom colored for a project. Alternatively, CSP Potassium Silicate Coating or a stain (created by mixing CSP Potassium Silicate Coating with clear CSP Liquid Silicate) can be used to reach a desired final color.

Safety Requirements

It is recommended that safety goggles, gloves, and a dust mask equipped with P-2 filters (or equivalent) be worn for protection while mixing.

Packaging and Coverage

A 5 gallon plastic pail contains approximately 44 lb. of material. This will produce 0.5 cubic feet of casting mortar.

Storage And Shelf Life

Store material in a dry area away from direct sunlight. Ambient storage conditions should be in the range of 40°F to 90°F with low to average humidity. Average shelf life is 2 years in original, unopened packaging.

Technical Data

Jahn M150 –Casting Mortar

LIQUID/ PLASTIC PHASE	
Ratio of water/dry material	1.4 fl. oz./lb.
Volume per pound mixed mortar	9.0 fl. oz./lb.
HARDENED PHASE	
Compressive strength	1200 to 1800 psi
Tensile bending strength	250 to 350 psi
Tensile strength	200 to 300 psi
Absorption (%)	4.0 to 6.0
Specific gravity	2.1

Warning

Not for internal consumption. Keep out of reach of children and animals. Consult Material Safety Data Sheet (MSDS) for specific information.

Notice: The information contained herein is based on our own research and the research of others, and it is provided solely as a service to help users. It is believed to be accurate to the best of our knowledge. However, no guarantee of its accuracy can be made, and it is not intended to serve as the basis for determining this product's suitability in any particular situation. For this reason, purchasers are responsible to make their own tests and assume all risks associated with using this product.

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