Cathedral Stone Products, Inc.

jahn MASONRY REPAIR MORTAR

PRODUCT DATA SHEET

Jahn M110 - Historic Pointing Mortar

Jahn M110 Historic Pointing Mortars have been designed to be used where other mortars have failed. These single-component, cementitious, mineral based pointing mortars are specifically formulated for the restoration of mortar joints in all types of masonry. **Jahn M110 contains no latex or acrylic bonding agents or additives, and is compatible with historic masonry.** Each pointing mortar formula is designed to have a lower compressive strength than the surrounding masonry. These mortars perform well even in situations where previous methods and materials have failed due to repeated water and salt saturation. The material is completely vapor permeable and may be custom colored. **Jahn M110 Historic Pointing Mortar can be applied in a single lift regardless of the depth. Successive lifts with waiting periods between lifts are not necessary.**

FEATURES AND BENEFITS

- **Not Affected by Salts**
- **No Shrinkage**
- **Single Layer Build-Up:** Faster application and reduced installation costs.
- **Factory Controlled:** No field chemistry resulting in product variation.
- **Individually Formulated Mixes:** Specific formulas for the restoration of limestone, sandstone, historic brick, Type O, Type N, and a universal pointing mortar. All formulations can be adjusted for specific requirements.
- **Custom Colored Upon Request:** Closely matches existing masonry. Choose from Standard or Custom Colors.
- **Single-Component:** Mixes with water only, improving quality control and consistency of application.
- **Contains No Latex or Acrylic Bonding Agents:** It protects the substrate by allowing salts, water vapor, and liquid water to reach the surface, preventing failure due to salt expansion or freeze/thaw cycle.

APPLICATION PROCEDURES

Surface Preparation

Joints to receive M110 must be sound and free of all dust, dirt, grease, laitance and/or any other coating or foreign substance which may prevent proper adhesion. Remove all loose and deteriorated mortar. Rinse joints with clean water.

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., the Corotech V160 Surface Tolerant Epoxy Mastic must be applied to all properly prepared ferrous metal surfaces before repairs are made. Refer to the Technical Data Sheets within Cathedral Stone's Product line for proper preparation and use of the Corotech V160 Surface Tolerant Epoxy Mastic.

Mixing

The mixing ratio is approximately 4 to 5 parts powder to 1 part water by volume, **depending on the M110 formulation, 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. For best results, add the powder to the water slowly. The working time will vary, depending upon wind, temperature, and humidity. Using excessive water in the mix may affect the color of the repair.

Pointing

Moisten the joint using clean water. If the surface is allowed to dry out before applying M110, this step must be repeated. This is very important. The mortar should be applied one lift using appropriate pointing tools. Place the mortar into the joint so that it matches the original joint profile.

Curing

Traditional Cure

Periodically mist M110 repairs using clean water for at least a 72-hour period. The timing for initial water misting will vary with ambient conditions. Hot, dry conditions may require misting within 30 to 60 minutes. Cooler, damp conditions may require waiting several hours before beginning the curing process. Mist several times a day. Should access to the repairs be impossible over a period of time, plastic may be used to cover them temporarily. The application of plastic, however, does not remove the need for normal curing techniques.

Self-Cure

No curing is necessary when masonry surface temperature is 85°F or lower. When working on surface temperatures above 85°F, follow the Traditional Cure procedures outlined above.

Clean Up

Clean up should be done by brushing with a clean dry brush across the joint. If any mortar residue remains on the surface of the masonry unit, cleaning with clean water and a sponge is sufficient if done before the mortar dries. Cleaning with acids and/or power washers should be not necessary if good pointing practices are followed. If acid cleaning is required test samples should be applied prior to start of cleaning to ensure no damage will result. **Neutralization of all acids must be ensured.**

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.

Limitations

- Do not apply Jahn Mortar to a frozen or exceedingly hot substrate. The applied mortar must be protected from extreme heat, freezing, excessive wind, direct sunlight, and rain. Ambient temperature range should be 40° F to 90° F with low to average humidity.
- Do not add bonding agents to Jahn Mortar or use them as surface preparation materials.
- Minimum thickness of mortar application is ½ ”

PACKAGING AND COVERAGE

A 5-gallon plastic pail contains approx. 44 lb. of material. This will cover 288 linear feet (1/4” joint at 1” depth).

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.

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TECHNICAL DATA

Jahn M110 JL - Joint Limestone

Compressive strength	2100 - 2400 psi
Tensile bending strength	478 psi
Modulus of elasticity	---
Absorption (%)	12

Jahn M110 JS - Joint Sandstone

Compressive strength	1100 - 1500 psi
Tensile bending strength	536 psi
Modulus of elasticity	---
Absorption (%)	14

Jahn M110 JB - Historic Brick

Compressive strength	2400 - 2700 psi
Tensile bending strength	522 psi
Modulus of elasticity	---
Absorption (%)	15

Jahn M110 JU - Universal

Compressive strength	1400 - 1700 psi
Tensile bending strength	449 psi
Modulus of elasticity	---
Absorption (%)	13

Jahn M110 JN - Type N

Compressive strength	783 psi
Tensile bending strength	232 psi
Modulus of elasticity	155 ksi
Absorption (%)	10 %

Jahn M110 JO - Type O

Compressive strength	370 psi
Tensile bending strength	116 psi
Modulus of elasticity	105 ksi
Absorption (%)	12.5 %

WARNING

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