

XHN-101

Hydraulic lime laying mortar

1- Product description

1.1 USE

- XHN-101 is a laying mortar based on well-graded sand, pure hydraulic lime from St-Astier and colorants (optional).

- The hydraulic properties (hardens by reaction with water) of this lime allows formulation of a cement free mortar which is closer to the formulation of historic mortars.

- Its high lime content increases considerably the following properties: self-healing, waterproofness, water vapour transmission and water retention in comparison with a conventional lime and cement based mortar.

- For interior and exterior use, this mortar is specially formulated for the restoration of damaged joints on brick or stone historic buildings.

1.2 ADVANTAGES

- Composition similar to historic mortars
- Excellent water vapour transmission and waterproofness
- Low shrinkage
- High resistance to salts

1.3 LIMITATIONS

- This mortar is exclusively developed for the installation of above ground, non-loadbearing walls.
- It is forbidden to add any additives on field (colorants¹ excepted).

Technical data

Characteristic		Results*
Compressive strength ASTM C-109	7 days	2.8 MPa (400 psi)
	28 days	7.2 MPa (1000 psi)
	90 days	9.6 MPa (1390 psi)
Vapour transmission ASTM E-96		19 perms
Pull-off adhesion CSA 23.2-6B	28 days	0.4 MPa (54 psi)
Flexural strength, ASTM C-348	7 days	1.1 MPa (160 psi)
	28 days	2.6 MPa (370 psi)
Shrinkage, ASTM C-596	90 days	0,06 %
Freeze/thaw resistance ASTM C-666 Modified		40 cycles
Specific gravity		1870 kg/m ³ 117 lb/ft ³
Yield of one 22.7 kg (50 lb) bag		0.012 m ³
		0.42 ft ³
Color **		Off white

* Results obtained in laboratory at 23°C

** Custom colored as requested

- If there is any doubt on the compatibility of XHN-101 with the elements used in a specific work, consult our technical representatives and/or our technical service.

- It is recommended to verify the adhesion between XHN-101 and the element used before starting any work. This precaution is necessary due to the diversity of masonry elements on the market.

- Color variation may be observed. This can be caused by the time allowed before finishing is done, by temperature and humidity changes, lack of protection, etc.

2- Installation

2.1 SURFACE PREPARATION

- Make sure the temperature (surface, surrounding and material) is between

¹ The quality and quantity of colorant used should respect ASTM C-979 standard

5°C (40°F) and 35°C (95°F), during the application and for the following 72 hours.

- Refer to the technical data sheet of the element for special installation requirements. (ex: should it be humidified?)

2.2 MIXING

• Mixing in small quantity (1 bag): Pour 4.0 litres (0.9 gallon) of potable water in a clean container.

- Slowly add dry ingredients while mixing with a drill equipped with a mixer attachment such as a Jiffler.

• Mix for a minimum of 5 minutes until a homogeneous consistency is obtained.

Note: Do not mix less than 1 bag. Do not add water to recover workability, simply mix for 1 or 2 minutes.

• Mixing in large quantities: Use a mortar mixer of appropriate size (mortar should be 3/4 full). Start mixer. Introduce requested amount of water (4.0 litres per 22.7 kg bag).

- Slowly add dry ingredients.

• Mix for a minimum of 5 minutes until a homogeneous consistency is obtained.

Note: Do not add water to recover workability, simply mix for 1 or 2 minutes.

2.3 APPLICATION

- Spread a uniform coat of mortar.

• Apply mortar on one end of the element and position it.

• Using a level, set it in the bedding mortar with small, sharp taps. Fill all the joints.

• Do not realign elements once they have been in contact with mortar.

• Mortar should be used within 1 ½ hour following mixing if temperature is higher or equal to 25°C (77°F). If temperature is

lower than 25°C (77°F), use within 2 ½ hours. Discard unused mortar.

2.4 FINISHING

• All mortar joints must be finished using a metal or plexiglas tool to provide the required look as well as weather resistance.

• Finishing must be done just before the mortar loses its plasticity, when finger pressure barely leaves any traces. It is impossible to set a specific time, it is necessary to rely on the mason's judgment.

- Do not overflow.

2.5 PROTECTION AND CURING

• Protect from rain and freezing (temperature superior to 5°C, 40°F) for the first 72 hours.

• In hot weather, protect from sun and wind to avoid rapid water evaporation of mortar.

• Protect finished work with plastic sheeting to avoid mortar spots.

2.6 CLEANING

• Clean tools with water while mixture is not yet hardened. Once it is hard, only a mechanical cleaning will be efficient.

• Protect and cover surroundings (windows, openings).

• During application, remove mortar spots with jute.

• Consult the element manufacturer or a cleaning specialist before any cleaning step is initiated. It is important to preserve mortar's integrity.

3- Packaging

• This product is available in 22.7 kg (50 lb) bags.

• A pallet contains 63 bags.

4- Storage

• Interior storage: Store in a cool, dry place.

Avoid placing bags directly on the floor.

• Exterior storage: Cover bags with a waterproof sheeting. Do not store directly on the floor.

• Shelf life is one year in original, unopened bags.

5- First aid

This product contains lime and may cause eye, skin and respiratory system irritation. Wear rubber gloves, safety glasses and approved dust mask. If swallowed, call a Poison Control centre or doctor immediately. Do not induce vomiting. In case of contact with eyes, rinse well with water for 15 minutes. In case of skin contact, rinse well with water. Keep out of reach of children. Consult the safety data sheet for more information.

6- Technical service

Contact Daubois for more information about application methods or conditions or to obtain the latest version of our technical documents.

Phone: 1-800-561-2664
(514) 328-1253

Fax: (514) 328-7694

Daubois inc
6155, boul. des Grandes Prairies
Saint-Léonard, Qc H1P 1A5
Canada
<http://www.daubois.com>

7- Warranty

Daubois guarantees that this product will perform as specified in this technical data sheet and suits the application for which it was intended. Nonetheless, Daubois does not offer any explicit or implicit warranty. Under this warranty, Daubois' responsibility is limited to either replace or refund the cost of the product proved defective.