


## Universal Waterproofing, Structural Repairing & Lining Mortar

- ☑ **Slow setting**
- ☑ **Waterproof / Water impermeable**
- ☑ **NSF/ANSI Standard 61 potable water certified** ([www.wqa.org](http://www.wqa.org)) 
- ☑ **Horizontal - Vertical - Overhead**
- ☑ **Heavy duty - Traffic bearing**
- ☑ **Single layer up to 1" thickness (spraying / guniting up to 2" vertical)**
- ☑ **Contributes to LEED (EQ 4.2)**

### Product Description

AQUAFIN® MORTAR-LN is a cementitious, inorganic, one component, ready-mixed, repair and surface lining waterproof barrier mortar with hydrophobic (water repellent) properties.

MORTAR-LN prevents water infiltration or exfiltration through the application.

### Typical Applications

- Horizontal, vertical and overhead applications to concrete, masonry and brick by troweling or spraying (guniting), to new or old structures.
- Repairing and reprofiling of spalled, corroded and honeycombed areas.
- Patching and filling of routed out cracks, faulty construction joints and sealing of tie holes.
- Installation of seal strips (reglets and fillets / coves) at floor/wall joints.

### Advantages

- Structural repair of ramps, balconies, parking structures, walkways, tanks, foundations, etc.
- Resists strong hydrostatic pressure.
- Resists abrasion, mechanical wear & deicing salts. ■ Applied to damp (moist) substrate.
- Applied to the positive or negative water pressure side of a structure.
- Not a vapor barrier, lets substrate "breathe".
- Easy to use -- needs only to be mixed with water.

- Applied by glove pointing, trowel or low pressure air-spraying (guniting).
- No odor -- No fumes -- Environmentally friendly.

### Preparation of Substrate

The substrate has to be firm, free from voids and larger cracks, and its surface open-pored to provide mechanical bond (ICRI CSP 5 - 7 profile). Bitumen, oil, grease, dirt, cement laitance, loose particles, remains of paint or coatings, etc. must be removed by means of high pressure water blasting, wet or dry sandblasting, scarifying or other suitable mechanical means. Substrates should be well pre-watered and slightly damp at the time of application (SSD (saturated surface dry)). Clean or replace exposed rebars or mesh as directed by the engineer. Active water leakages must be stopped with AQUAFIN PLUG-IC. Chemical grout may be required where severe water infiltration exists.

- ◆ Cracks should be routed out to a U-shaped configuration, appx. 3/4" (20 mm) wide and a minimum of 1" (25 mm) deep.
- ◆ Tie holes should be roughened prior to filling.
- ◆ Spalled and honeycombed areas must be thoroughly cleaned and chiseled back to sound concrete prior to repair.

### Mixing

**0.8 - 1.1 gal water per 50 lb bag  
(3.2 - 4.0 L per 22.7 kg)**

depending on type of application.

Add MORTAR-LN powder to water and mix thoroughly for at least 3 minutes with a mechanical mixer to a stiff mortar consistency for repairs, a thick batter for glove pointing or troweled horizontal applications, and a pumpable consistency for spray (gunite) applications. Adjust water using small quantities until proper consistency is obtained.

*Note: due to the MORTAR-LN hydrophobic characteristics, it takes up to 30 (thirty) seconds for mixing water to combine with the dry powder mix.*

### Application

**NOTE:** Do not apply MORTAR-LN at temperatures below 40° F (5° C) or to a frozen substrate. At high temperatures fast setting is possible. This product is not recommended for use in expansion or contraction joints.

Cracks / Reglets (seal strips) / Tie holes / Faulty construction joints / Brick-mortar joints:

Fill prepared cavity flush to surface with MORTAR-LN.

For added protection prime cavity surface with AQUAFIN-IC or AQUAFIN-1K.

Spalled and honeycombed areas

Apply in thick mortar consistency to required profile. Layer thickness varies from 1/8" (3 mm) to several inches depending on environmental conditions and method of application. Leave surface rough for subsequent layers or surface treatments to bond.

Lining/ Surface Applications

- Horizontal: Pour MORTAR-LN in one working cycle at 1/4" - 1" (4 - 25 mm) over horizontal surfaces, then compact and strike off.
- Vertical and/or overhead: Apply MORTAR-LN to desired surfaces in a parge (stucco) coat by trowel or suitable mortar spray (gunite) equipment in single lift of 1/8" - 1" (3 - 25 mm) depending on depth of corrosion and substrate condition. Apply a scratch coat first when troweling.

Multiple lifts can be carried out as soon as the underlying lift has reached initial set (~5-6 hrs) (wet on wet). Underlying surface should be screeded and left open textured for mechanical bond and maximum intercoat adhesion of next layer or top coating.

Surface finish: Final layer may be troweled smooth/flat, broomed to increase non-skid quality, or sprayed with orange peel texture.

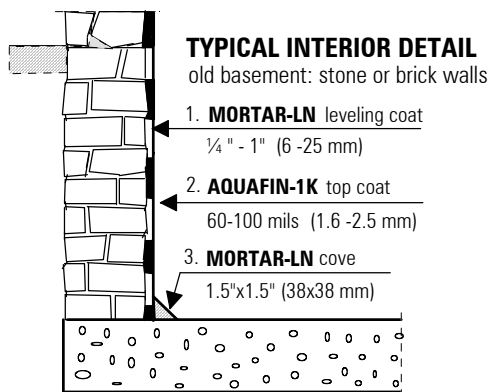
Top coating: Where specified or desired AQUAFIN-IC, 1K or 2K/M can be applied as soon as MORTAR-LN has reached initial set.

Subsequent coatings such as paint or epoxies can be applied after the curing period.

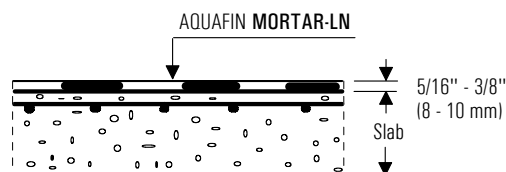
**CURING:** Provide immediate protection (i.e. PVC sheeting, burlap, etc.) in exposed areas during the setting period (~5-6 hrs.). Protect from frost for at least 3 days.

### Storage, Shelf Life & Packaging

Store in a dry enclosed area off the ground. Shelf life in unopened, undamaged bags is 12 months. Supplied in 50 lb (22.7 kg) bags or plastic pails.



**TYPICAL THIN-BONDED OVERLAY DETAIL FOR VEHICULAR TRAFFIC**  
concrete slab, parking deck, etc.



# MORTAR-LN

## Safety

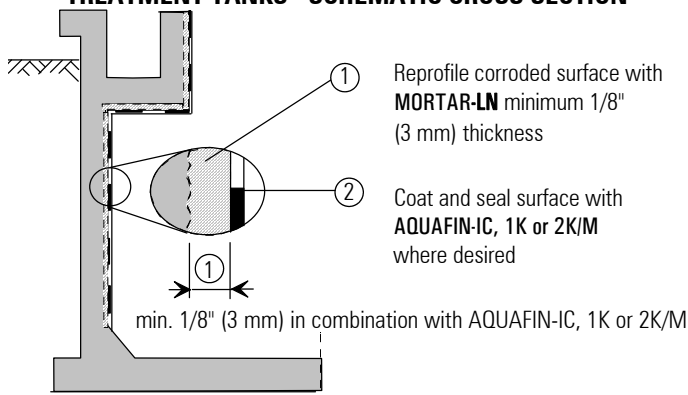
**Refer to MSDS.** For commercial use only. This product contains Portland cement and sand (crystalline silica) and is highly alkaline. Dust may cause respiratory tract irritation and/or delayed lung injury (silicosis). NTP lists free respirable crystalline silica as a suspect carcinogen. Avoid breathing dust. Avoid contact with skin and eyes. Wear rubber gloves and safety goggles during mixing and application. In enclosed areas, a respirator mask is recommended during spray applications. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek medical advice. **KEEP OUT OF REACH OF CHILDREN.**

## Physical & Technical Data for MORTAR-LN

<b>Aggregate State:</b>	Powder	<b>Bulk Density:</b>	~100 lb/ft <sup>3</sup> (~1.6 kg/L)
<b>Color:</b>	Gray	<b>Setting Time:</b>	~ 5 to 6 hours
<b>VOC:</b>	0 g/L	<b>Pot Life:</b>	30-40 min. @ 70°F (21°C)
TEST	RESULTS	METHOD	
Compressive Strength	24 hr	700 psi ( 5.0 MPa)	EN 196/1 (ASTM C-109)
	3 days	2100 psi (14.7 MPa)	
	7 days	4700 psi (32.5 MPa)	
	28 days	6000 psi (41.3 MPa)	
Flexural Strength	24 hr	30 psi (0.2 MPa)	EN 196/1 (ASTM C-348)
	3 days	620 psi (4.3 MPa)	
	7 days	870 psi (6.0 MPa)	
	28 days	1160 psi (8.0 MPa)	
Bond (Adhesion)	28 days	>220 psi (>1.5 MPa)	(ASTM C-321)
Shrinkage	28 days	0.023%	(ASTM C-596)
Water Permeability: control	LN @ 1/8" thickness	1.58 x 10 <sup>-7</sup> cm/s @ 3 d	Note: 100 psi (234 ft. head pressure) positive side
	LN @ 1/8" thickness	3.60 x 10 <sup>-9</sup> cm/s @ 3 d	
	LN @ 1/8" thickness	2.36 x 10 <sup>-10</sup> cm/s @ 28 d	

All data are average values obtained under laboratory conditions. In practical use temperature, humidity and absorbance of the substrate may influence the above given values.

## EXAMPLE REHABILITATION OF WATER OR SEWAGE TREATMENT TANKS - SCHEMATIC CROSS SECTION



## Consumption & Yield of 50 lb (22.7 kg) bag

### Patching and Repair:

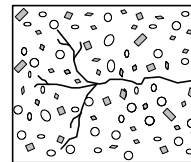
	Size inch (mm)	Consumption lb/ft (kg/m)	~Yield/bag ft (m)
Cracks, U-shaped	1 x 1 (25x25)	1.0 (1.3)	50 (15.2)
Reglets, seal strips	1 x 1 (25x25)	1.0 (1.3)	50 (15.2)
Coves, triangular shaped	1.5 x 1.5 (38x38)	1.0 (1.3)	50 (15.2)
Tie holes	1x1x1 (25x25x25)	---- ----	~ 600 nos.
Patching	approx. 0.42 ft <sup>3</sup> (0.012 m <sup>3</sup> ) / bag		

### Lining (Parging), Sealing and Waterproofing Applications:

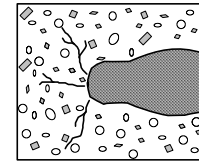
	Layer thickness inch (mm)	Consumption lb/y <sup>2</sup> (kg/m <sup>2</sup> )	~Yield / bag ft <sup>2</sup> (m <sup>2</sup> )
minimum	1/8" (3)	11.0 (6.0)	40 (3.8)
	1/4" (6)	22.0 (12.0)	20 (1.9)
vehicular traffic	5/16" (8)	29.5 (16.0)	15 (1.4)
vehicular traffic	3/8" (10)	37.0 (20.0)	12 (1.1)
	1/2" (12.7)	46.9 (25.4)	10 (0.9)
	1" (25.4)	94.0 (50.8)	5 (0.5)

All above values are approximate depending on surface conditions.

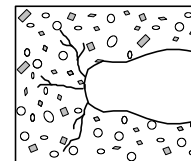
### Typical detail crack repair



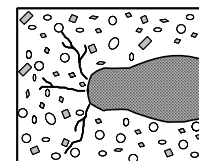
1  
Locate  
Crack



3  
Fill cavity with  
**MORTAR-LN**



2  
Rout/cut out  
in U-shaped  
form



4  
Top coat  
surface with  
**AQUAFIN-IC**  
**AQUAFIN-1K**  
**AQUAFIN-2K/M**

Note: For added protection prime cavity surface with **AQUAFIN-IC**.

**Note:** Installer is responsible for proper product application. Site visits by Aquafin personnel or representatives are solely for the purpose of making technical recommendations, not for providing supervision or quality control.

**For professional use only. Not for sale to or use by the general public.**

**LIMITED WARRANTY:** AQUAFIN, INC. warrants this product for 1 year from date of installation to be manufactured free of defects and to be consistent with its standard high quality. We will replace or, at our election, refund the purchase price of, any product which is proven to be defective, provided that the product was properly applied. Our product recommendations are based on Industry Standards and testing procedures. We assume no warranties either written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN, INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including without limitation indirect or consequential damages, down time, or delay.

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