



VOIDSPAN

100, 200 Series

# PHL and PHLc Mortar Binders

## PRODUCT DATA SHEET

### Description/ Uses

**VoidSpan PHL and PHLc Mortar Binders** are pozzolan-lime based binders used in creating pointing and bedding mortars when mixed with sand. Designated PHL and PHLc, as per ASTM C1707, these materials produce low to moderate strength mortars that have properties that are close to the intended minimum requirements of ASTM C270 Type K and Type N mortars, respectively.

### Mixing

Blend one part **VoidSpan PHL or PHLc Mortar Binder** with 2 parts sand (by volume) to create a workable, breathable low to moderate strength mortar. Sand shall meet the requirements of ASTM C144 unless otherwise modified under ASTM C1713, and pigment shall be limited to 10 percent (by weight) of the binder. Mix in accordance with ASTM C270.

### Preparation and Placement

Immediately prior to application, dampen contact surfaces to a saturated condition but avoid leaving standing water.

**Working Time:** Up to 60 minutes; do not re-temper after 60 minutes.

**Placement:** Place mortars made with **VoidSpan PHL and PHLc Mortar Binders** as you would any lime based mortar in accordance with good masonry practice and applicable standards and codes.

**Curing:** Moist Cure mortars made with **VoidSpan PHL and PHLc Mortar Binders** and protect from inclement weather and temperatures outside of a 5 to 32 degrees Celsius (40 to 90 degrees F) range until they reach sufficient strength, re-moistening as necessary for the first 7 days. Keep from freezing for a period of 28 and 14 days, respectively.

**Clean-up:** Mortars made with **VoidSpan PHL and PHLc Mortar Binders** are primarily lime-based compositions, and can be cleaned up in a similar manner to any other lime-rich mortar. This can be done with a damp sponge, or with small damp brushes.

### Chemical and Physical Properties

Cement content by weight of binder:

PHL Mortar Binder	0%
PHLc Mortar Binder	< 15% meeting ASTM C1707 as a "PHLc"

Chloride content by weight of binder: < 0.002%

Standard curing time (CT) for tests: 120 days per ASTM C1713

Tested compressive strength:

When mixed at a 1:2 binder-to-sand ratio with an ASTM C144-compliant mason's sand, passing No. 4 and retained on a No. 200 screen,

w/ PHL Mortar Binder= 4.32 MPa (627 psi) at 28 days

w/ PHLc Mortar Binder= 6.00 MPa (870 psi) at 28 days

## Cautions/ Limitations

- Do not use in unclean, friable, or excessively dry and/or absorbent joints, or in joints with standing water. Apply when air temperatures are between 5 degrees C (40 degrees F) and 32 degrees C (90 degrees F) prior to and for at least 7 days after placement. Do not allow the mortar to freeze for at least 28 (PHL) or 14 days (PHLc) after placement.
- **This product is highly alkaline and may contain very small amounts of crystalline silica as inhalable dust. Exercise care in using this product, along with appropriate eye, skin and breathing protection. Consult the Safety Data Sheet for additional information.**

## Installer Responsibility

It shall be the Installer's sole responsibility to use good judgment and experience in installing this material and to conform to all Cautions and Limitations, and all requirements that are noted or referenced herein.