



## CONCRETE CASTING



# XtremeSeries

## XS LIGHTWEIGHT PLUS 1



View More Info for this Product at  
<http://www.surecretedesign.com/xs-lightweight-plus1/>

# XS LIGHTWEIGHT PLUS 1

## DESCRIPTION

*XS Lightweight Plus 1* is a dual component lightweight bag mix able to create cast pieces that can replace heavy, bulky precast concrete architectural elements. The lightweight aggregate provides the greatest strength and unparalleled readability, among the choices for lightweight concrete. *XS Lightweight Plus 1* greatly reduces the materials and labor required to construct traditional architectural detailing and panels. Thinner precast pieces are routine and quicker production times are accomplished. With a wide range of textures and color selection, design considerations are nearly limitless. *XS Lightweight Plus 1* provides a durable precast element for a pleasing architectural detail.

## TEMPERATURE/DRY/CURE

Fabrication of *XS Lightweight Plus 1* should be inside a shop. Casting should take place when shop temperature and all materials are maintained between 50°F (10°C) and 90°F (32°C) throughout all fabrication and curing. Product will dry and cure slower at cool temperatures and conversely, faster at warm temperatures. Full cure is reached at approximately 30 days, like concrete. Although rare, at high altitudes and dry climates, some pieces may require covering with plastic to slow the cure and avoid curling.

## MIXING

### Single bag batches

1. Utilize a handheld concrete mixer with a helical (spiral) mixer blade, such as an Eibenstock model #EHR 20R or similar.
2. Thoroughly mix *XS Lightweight Plus Modifier*.
3. Add 1 gal (3.8 L) *XS Lightweight Plus Modifier* to a clean 6 gal (23 L) pail or similar mixing vessel
4. Add 16 oz. (0.5 L) water
5. Add *Color Packs* (if desired) to *XS Lightweight Modifier* and water and mix.
6. While mixing add approximately  $\frac{3}{4}$  of the *XS Lightweight Plus 1* bag.
7. Continue mixing until all dry powder is incorporated.
8. Scrape sides of pail with margin trowel to prevent dry fiber pockets from forming.
9. Add remaining *XS Lightweight Plus 1* and continue to mix for 2 – 3 minutes.
10. Up to an additional 48 oz (1.4 L) water may be added for a more fluid mix.

### Multiple bag batches

1. Utilize a mortar mixer (preferred with a horizontal helical [spiral] shaft) or a concrete mixer of sufficient size to allow the free vertical fall of product while mixing.
2. Maintain the ratio of 1 gal (3.8 L) *XS Lightweight Plus Modifier* and 16 oz. (0.5 L) water to 1 - 35 lb (22.7 kg) bag *XS Lightweight Plus 1*.
3. Thoroughly mix *XS Lightweight Plus Modifier*.
4. Place total amount of *XS Lightweight Plus Modifier* and water for the entire mix into the mixer.
5. Add all *Color Packs* to the modifier and (if desired) and start mixer.
6. Slowly add one *XS Lightweight Plus 1* bag at a time to the

## PACKAGING

35 lb (15.9 kg) bag  
0.5 lb (227 g) *Color Pack* for one of 30 standard colors.  
(Variations that do not match the color chart are expected.)

## MIXING RATIO

1 gal (3.8 L) *XS Lightweight Plus Modifier* to 1 – 35 lb (15.9 kg) bag of *XS Lightweight Plus 1*  
+ up to 64 oz. (1.8 L) water

## COVERAGE

1 - 35 lb (15.9 kg) bag of *XS Lightweight Plus 1* =  
approx. 12 ft<sup>2</sup> @  $\frac{1}{2}$ " (1.1 m<sup>2</sup> @ 12.7 mm)  
OR 0.5 ft<sup>3</sup> (0.01 m<sup>3</sup>)

## DENSITY

70 lbs./ft<sup>3</sup> (1121 kg/m<sup>3</sup>)

## COMPRESSIVE STRENGTH ASTM C-170

n/a

## FLEXURAL STRENGTH ASTM C-880

n/a

## SHELF LIFE

Under normal conditions: *XS Lightweight Plus 1* bag mix and *XS Lightweight Plus Modifier* when the container and packaging are kept dry and moisture free, out of direct sunlight, the shelf life of an unopened product is (12) months from the date of purchase. Additionally *XS Lightweight Plus Modifier* should be protected from freezing. Storage for both products must be under roof and off the floor. Rotate inventory to maintain product that is within limits.

- mixer to prevent material from forming dry fiber pockets.
7. Additional water may be added, not to exceed 48 oz. (1.4 L) per bag of *XS Lightweight Plus 1*
  8. After last bag is added, allow all material to thoroughly mix for 2 – 3 minutes. Visually inspect entire load to ensure that all fiber is blended.

## APPLICATION

Although not limited to it, the most common method of placement simply involves pouring *XS Lightweight Plus 1* directly from the pail or mixing vessel into the form or mold. The placement of a light release agent, like Cresset release, into the mold prior to filling, may be beneficial, especially for high detail molds or polystyrene molds.

## DEMOLD

In warm weather 6 - 8 hours may be appropriate to de-mold. Cool temperature or pieces with extreme texture will require overnight drying. *XS Lightweight Plus 1* should not be left in the mold past a 24 hour period, as curling of the piece is likely. A freshly de-molded sample should be handled similar to granite or natural stone, and should be well supported above the work surface to allow the free flow of air around the piece.

## CLEANING

Although not absolutely necessary, most *XS Lightweight Plus 1* samples require cleaning. *SCR* diluted with water 3:1 (3 parts water to 1 part *SCR*) is recommended. For specific directions on *SCR* refer to its TDS.

## SLURRY

*XS Slurry* fills pin holes and voids to create a smooth surface. *XS Lightweight Plus 1* is not customarily slurried. However, depending upon desired finished texture, *XS Slurry* may be utilized. For specific directions on *XS Slurry* refer to its TDS.

## GRIND/POLISH

*XS Lightweight Plus 1* does not lend itself to polishing, however, it may be ground, as required with a diamond pad.

## STAINING

*XS Lightweight Plus 1* accepts most concrete stains. *Eco-Stain* may add a desirable design element to a *XS Lightweight Plus 1* piece and is eco-friendly and UV stable. Variations that do not match the color chart are expected. For specific directions on *Eco-Stain* refer to its TDS.

## SEALING

*XS Lightweight Plus 1* pieces are completed by sealing. Depending upon the desired finish, any of the *SureSeal* or *XS* series sealers perform well. For specific directions on sealing refer to the appropriate TDS.

## SEAMING/ADHESION

100% silicone caulk provides an excellent seaming and adhesive fastening material, as it allows for movement of the precast piece. *XS Lightweight Plus 1* like any other concrete will undergo slight dimensional variations based upon its environment (e.g. shrinkage or expansion). Do not use caulking or adhesive that could "bleed" through the finished surface, such as petroleum based products. Large pieces and undermount sinks will require mechanical fastening.

## SUITABILITY SAMPLE

Always prepare an adequate number of test samples for suitability for products' intended use.

## CLEAN-UP

Before *XS Lightweight Plus 1* dries; spills and tools can be cleaned up with water.

## DISPOSAL

Contact your local government household hazardous waste coordinator for information on disposal of unused product.

## LIMITATIONS

For use by trained professionals that have read the complete TDS and SDS.

## WARRANTY

Warranty of this product, when used according to the directions, is limited to refund of purchase price, or replacement of product (if defective), at manufactures/seller's option. *SureCrete Design Products* shall not be liable for cost of labor or direct and/or incidental consequential damages.

## CAUTIONS

**KEEP OUT OF REACH OF CHILDREN.** **Inhalation:** Avoid prolonged breathing of airborne dust, particularly present during mixing. Use NIOSH approved respirator for nuisance if threshold limit values are unsafe. **Skin Contact:** Skin contact may cause irritation. Remove contaminated clothing and wash affected skin with soap and water. Launder clothing before reuse. If symptoms persist, seek medical attention. **Eyes:** Wear safety eye protection when applying. Contact with eyes may cause irritation. Flush eyes with water for 15 minutes. If symptoms persist, seek medical attention.

## SAFETY DATA SHEETS

The following are links to all available safety data sheets related to this product:

- [xtreme-series-lightweight-plus-1-sds.pdf](#)
- [xtreme-series-lightweight-plus-modifier-sds.pdf](#)