XS Lightweight Plus 3

XS LIGHTWEIGHT PLUS 3

DESCRIPTION

XS Lightweight Plus 3 is a dual component lightweight bag mix able to create cast pieces that can replace heavy, bulky precast concrete architectural elements. XS Lightweight Plus 3 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 3 provides a durable precast element for a pleasing architectural detail with the lightest achievable weight.

TEMPERATURE/DRY/CURE

Fabrication of XS Lightweight Plus 3 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 or maintenance 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 #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 2 qts. (1.9 L) water
5. Add Color Packs (if desired) to XS Lightweight Modifier and water and mix.
6. While mixing add approximately ¾ of the XS Lightweight Plus 3 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 3 and continue to mix for 2 – 3 minutes.
10. Up to an additional 2 qts. (1.9 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 2 qts. (1.9 L) water to 1 – 35 lb (15.9 kg) bag XS Lightweight Plus 3.
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 water (if desired) and start mixer.
6. Slowly add one XS Lightweight Plus 3 bag at a time to the mixer to prevent material from forming dry fiber pockets.
7. Additional water may be added, not to exceed 2 qts. (1.9 L)

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 3 + up to 1 gal (3.8 L) water

COVERAGE

1 - 35 lb (15.9 kg) bag of XS Lightweight Plus 3 = approx. 14.2 ft² @ ½" (1.23 m² @ 12mm)

DENSITY

59 lbs/ft³ (960 kg/m³)

COMPRESSIVE STRENGTH ASTM C-109-08

3 day - 4,090 PSI (28,199 kPa)
7 day - 4,980 PSI (34,336 kPa)
28 day - 5,410 PSI (37,301 kPa)

FLEXURAL STRENGTH ASTM C-348-08

3 day - 775 PSI (5,343 kPa)
7 day - 905 PSI (6,240 kPa)
28 day - 860 PSI (5,930 kPa)

TENSILE STRENGTH ASTM C190-85

3 day - 510 PSI (3,516 kPa)
7 day - 510 PSI (3,516 kPa)
28 day - 550 PSI (3,792 kPa)

SHELF LIFE

Under normal conditions: XS Lightweight Plus 3 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.

APPLICATION

Although not limited to it, the most common method of placement simply involves pouring XS Lightweight Plus 3 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.
**CLEANING**

Although not absolutely necessary, most XS Lightweight Plus 3 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 3 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 3 does not lend itself to polishing, however, it may be ground, as required with a diamond pad.

**STAINING**

XS Lightweight Plus 3 accepts most concrete stains. Eco-Stain may add a desirable design element to a XS Lightweight Plus 3 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 3 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 3 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 3 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.

**SAFETY DATA SHEETS**

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

- [xtreme-series-lightweight-plus-3-sds.pdf](xtreme-series-lightweight-plus-3-sds.pdf)
- [xtreme-series-lightweight-plus-modifier-sds.pdf](xtreme-series-lightweight-plus-modifier-sds.pdf)

**DEMOLD**

In warm weather 10 - 12 hours may be appropriate to de-mold. Cool temperature or pieces with extreme texture will require overnight drying or longer. XS Lightweight Plus 3 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.

**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.