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# XS TERRAZZO



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http://www.surecretedesign.com/xs-terrazzo/





# DESCRIPTION

XS Terrazzo is a dual component precast concrete bag mix to which decorative aggregate is added and later exposed to create the unique, polished look of terrazzo. It greatly reduces the materials and labor required to construct traditional precast terrazzo. No reinforcement steel is required, thinner precast pieces are routine, and quicker production times including grinding and polishing are accomplished. A stronger, denser and more flexible cementitious composite is created by combining cutting-edge technology with modern fiber advancements. With a wide range of coloring and the addition of decorative aggregate, design considerations are nearly limitless. XS Terrazzo produces concrete countertops, fireplace mantles and facades, shower surrounds, wall panels, furniture and many other architectural elements. This mix design provides the opportunity to earn "green" points by using recycled content (e.g. glass, granite, stone, etc).

# TEMPERATURE/DRY/CURE

Fabrication of *XS Terrazzo* 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 Precast Modifier.
- 3. Add 2 gallon (7.6 L) **XS Precast Modifier** to a clean 10 gallon (37.9 L) pail or similar mixing vessel
- 4. Add Color Packs to XS Precast Modifier (if desired) and mix.
- 5. While mixing add the XS Terrazzo bag.
- Continuously mix and add aggregate within the ranges described below:
  - a. A minimum of 50 lbs. (22.7 kg) of aggregate must be added per bag of **XS Terrazzo**. Of the 50 lb. (22.7 kg) aggregate load, 20% of load or 10 lbs. (4.5 kg) must be fine aggregate, size 00 or smaller.
  - b. A maximum of 80 lbs. (36.3 kg) of aggregate may be added per bag of **XS Terrazzo**. Of the 80 lb. (36.3 kg) aggregate load, 20% of load or 16 lbs. (7.3 kg) must be fine aggregate, size 00 or smaller.
- 7. Scrape sides of pail with margin trowel to prevent dry fiber pockets from forming.
- 8. Up to an additional 40 oz. (1.2 L) water may be added for a more fluid mix.
- 9. After all components have been added continue to mix for 2-3 minutes.

#### 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.



#### **PACKAGING**

50 lb (22.7 kg) bag

0.5 lb (227 g) *Color Pack* (4 required for an approximate match of 30 standard colors. Variations in shading expected with cement based products.)

#### **MIXING RATIO**

2 gal (7.6 L) **XS Precast Modifier** to 1 – 50 lb (22.7 kg) bag of **XS Terrazzo** 

+ up to 40 oz (1.2 L) water 50 – 80 lb decorative aggregate

#### **COVERAGE**

1 - 50 lb (22.7 kg) bag of XS Terrazzo = approx. 20 ft<sup>2</sup> @  $\frac{1}{2}$ " (1.9 m<sup>2</sup> @ 12.7 mm) 15 ft<sup>2</sup> @  $\frac{3}{4}$ " (1.4 m<sup>2</sup> @ 19 mm)

Varies based upon aggregate selection

#### **DENSITY**

126.1 lb/ft³ (2,018 kg/m³) Varies based upon aggregate selection

#### **COMPRESSIVE STRENGTH ASTM C-170**

10,567 PSI (72,857 kPa) Varies based upon aggregate selection

#### FLEXURAL STRENGTH ASTM C-880

1,464 PSI (10,094 kPa)

Varies based upon aggregate selection

#### SHELF LIFE

Under normal conditions: **XS Terrazzo** bag mix and **XS Precast 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 Precast 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.

- 2. Maintain the ratio of 2 gal (3.8 L) **XS Precast Modifier** per bag of **XS Terrazzo** + aggregate loading within the below ranges:
  - a. A minimum of 50 lbs. (22.7 kg) of aggregate must be added per bag of **XS Terrazzo**. Of the 50 lb. (22.7 kg) aggregate load, 20% of load or 10 lbs. (4.5 kg) must be fine aggregate, size 00 or smaller.
  - b. A maximum of 80 lbs. (36.3 kg) of aggregate may be added per bag of **XS Terrazzo**. Of the 80 lb. (36.3 kg) aggregate load, 20% of load or 16 lbs. (7.3 kg) must be fine aggregate, size 00 or smaller.
- 3. Thoroughly mix XS Precast Modifier.
- 4. Place total amount of **XS Precast Modifier** for the entire mix into the mixer.
- 5. Add all *Color Packs* to the modifier (if desired) and start mixer.
- 6. While mixer is running add one XS Terrazzo bag at a time.
- 7. Add decorative aggregate to running mixer.
- 8. Additional water may be added, not to exceed 40 oz. (1.2 L) per bag of **XS Terrazzo**
- 9. After last bag is added, allow all material to thoroughly mix for 2 3 minutes. Visually inspect entire load to ensure that all fiber and aggregate is blended.



#### APPLICATION

Although not limited to it, the most common method of placement simply involves pouring *XS Terrazzo* directly from the pail or mixing vessel into the form or mold.

# **DEMOLD**

In warm weather 4-6 hours may be appropriate to de-mold. Cool temperature or pieces with extreme texture will require overnight drying. **XS Terrazzo** 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**

As **XS Terrazzo** samples require grinding / polishing, the step of cleaning may be skipped.

# **SLURRY**

XS Slurry fills pin holes to create a smooth surface, but if LD1800 is utilized (as described below) slurry may not be necessary. For specific directions on XS Slurry refer to its TDS.

# **GRIND/POLISH**

- 1. Grind precast sample as soon as practical. Use of a planetary grinder is recommended. Allow a minimum of 8 hours cure time.
- 2. Begin wet grinding with 50 grit diamond pad to expose aggregate.
- 3. Proceed to wet grind with 100 grit diamond pad.
- 4. *LD1800* may be utilized with wet 100 grit grind to densify and fill pinholes with resultant color match slurry. For specific directions on *LD1800* refer to its TDS.
- 5. Allow *LD1800* and slurry to dry. Proceed with 200 grit and if any pinholes are still present add more *LD1800* and continue grinding.
- 6. Remove any excess dried slurry with the 200 grit.
- 7. Proceed through 400 grit polish. Product responds best to a dry polish
- 8. If sealer is to be used do not polish past 400 grit, as a measure of profile must be maintained for sealer adhesion.
- 9. If desired and sealer is not used, one can continue polishing through 800 grit and beyond, however, such a piece is subject to staining.

# **STAINING**

**XS Terrazzo** receives its color from **Color Packs** and decorative aggregate, not staining.

#### **SEALING**

**XS Terrazzo** pieces are completed by sealing. Two distinct sealers have been created for **XS Terrazzo**:

- XS-327 hybrid water based polyurethane available in matte and gloss finish.
- XS-PC12 hybrid solvent based polyurea, color enhancing, high gloss mirror finish.

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 Terrazzo** 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 Terrazzo 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-xs-terrazzo-sds.pdf
- xtreme-series-xs-modifier-sds.pdf

