

UltraSealZ™ ZFRC Admixture

High Performance and Acid Resistance



Product Overview

UltraSealZ™ ZFRC is a multi component blend of slag cement, pozzolan, E+ and other chemical and mineral admixtures that when added to portland cement and sand, produces high performance and acid resistant concrete. Formulated without plasticizer, specifically for use in Glass Fiber Reinforced Concrete (GFRC) mix designs.

Preparation - Getting Ready to Mix

Have all ingredients assembled before you start. Wear vinyl or nitrile gloves and protective eye wear. Use an accurate scale for weighing components. Use materials between 50° F and 90° F (10° C - 32° C). Colder temperatures will slow the reaction and warmer temperatures will accelerate it.

Once the temperature of the mix reaches 70° F (21° C), the reaction begins to accelerate. Using a laser thermometer to monitor, keep the temperature of the mix near 60° F (15° C). In warm environments, substitute up to 50% of the water with ice. UltraSealZ Admixture has a shelf life of 1 year after purchase if kept in a dry, moisture free environment. Once opened, the material should be used as soon as possible.

Mixing Instructions

Use clean, potable water and clean mixing vessels. Use a handheld mortar mixer to mix. If mixing on a regular basis or for a large project, investing in a vertical shaft mixer may be justified.

- Add water and Liquid Polymer Plus to a clean mixing bucket
- Add pigment, if required
- Add half of cement, sand and UltraSealZ ZFRC and mix
- Add ½ plasticizer and continue mixing
- Slowly add remainder of cement, sand and UltraSealZ ZFRC
- Stop mixing, scrape sides and bottom of container and continue mixing
- Add PVA fibers, if required
- Add additional plasticizer as required
- Allow mix to rest/false-set for 3 – 5 minutes
- Mix again and add AR glass fibers as needed (for backer mix only).
- Mix until homogenous.*

*Mixing too long or at too high a speed after fiber has been added can filamentize or damage the fiber, resulting in placement issues and reduced strengths.

Mixing Recipes for UltraSealZ ZFRC Admixture

ZFRC Admix	Water	Liquid Polymer Plus	Water Reducers	Portland Cement**	30/60 Mesh Silica Sand	Reinforcement (Backer Mix)
3.35 lb (1.52 kg)	7.5 lb (3.4 kg)	1.5 lb (0.68 kg)	50-150 g WR 205 (Face Coat) 5-20 g WR 310 (Backer Mix) WR 420 as needed to adjust	24.45 lb (11.1 kg)	22.2 lb (10.07 kg)	1.5 lb (0.68 kg) AR Glass Fiber 0.1 lb (45 g) PVA 15 Fiber (optional)

**Type 1 White Recommended



Product Specifications

Packaging: 40 lb (18.14 kg) bag

Coverage: 50 lb mixed concrete will provide
5 ft² at 1" thick
(0.5 m² at 2.5 cm thick)

Total Cementitious Binder: 25.84 lb (11.72 kg)

Test pieces should be prepared to ensure that the product is suitable for the intended use. This will also familiarize you with the material.

Safety

KEEP OUT OF REACH OF CHILDREN

Avoid prolonged exposure to dust created while mixing. Use a NIOSH approved respirator if threshold limit values are unsafe. Dust collection systems are recommended to maintain a safe working environment.

Wear nitrile or vinyl gloves and safety eye protection while handling the material. Follow all safety instructions from mixing equipment manufacturer.

The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

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