

SPECCRETE® COUNTER CAST HIGH STRENGTH CEMENT MIX FOR PRECAST COUNTER TOPS

PRODUCT DESCRIPTION: Speccrete® Counter Cast is a pre-blended, non-shrink, fiber modified, high strength castable cement mix for formed precast or cast in place countertop pours. Speccrete® Counter Cast is recommended for both interior and exterior countertop applications, and can be used in either casting upright for a hard trowel finish, or precast upside down for a wet cast “pressed” finish. Speccrete® Counter Cast is a simple to use bag mix which provides high compressive strengths with or without optional coarse aggregate additions.

BENEFITS: HIGH EARLY COMPRESSIVE STRENGTHS...VERY LIGHT BASE COLOR CAN BE PIGMENTED EASILY...EASY TO MIX, PLACE, TROWEL OR TEXTURE...MINIMAL SHRINKAGE AND CURLING...FIBER FORTIFIED FOR INCREASED TENSILE AND FLEXURAL STRENGTHS...ADDITIONAL FORMULATIONS AVAILABLE FOR VARIOUS STRENGTH OR COLOR REQUIREMENTS IF REQUESTED

COMPOSITION: Portland/calcium sulfo-aluminate based cements, selected aggregates, polypropylene fiber, and water reducing, shrinkage reducing chemical additives. This product contains no calcium chloride or added chlorides that contribute to reinforcement steel corrosion.

WORKING & PERFORMANCE PROPERTIES @ PLASTIC CONSISTENCY / 70°F (21°C) (APPROXIMATE)*:	
Initial Set per CRD C-C82:	2.0 hours
Final Set per CRD C-C82:	3.5 hours
Coverage per 50 lb. / 22.68 kg Bag:	3.60 sq. ft. at 1.5 inches thickness, 2.40 sq.ft. @ 2.0 inch thickness
Yield per 50 lb. / 22.68 kg Bag:	0.40 cubic feet / 0.020 cubic meters

*Plastic consistency was obtained using 13.8% water to powder ratio = 3.31 quarts water / 50 lb bag

TECHNICAL DATA:

COMPRESSIVE STRENGTH PER ASTM C-227 @ PLASTIC CONSISTENCY / 70°F (21°C) (APPROXIMATE):	
1 day	4250 psi 29.75 mpa
3 days	5850 psi 40.95 mpa
7 days	6400 psi 44.80 mpa
28 days	7250 psi 50.75 mpa

PREPARATION: Forming: Speccrete® Counter Cast is usually placed between 1.5 to 2.0 inches thick. Make sure all forming, bracing and edging materials are properly supported and tight fitting or caulked. Use water resistant plywood or concrete backer board for forming cast in place counters. Protect all existing cabinets and flooring from cement splatter during mixing and placement. **Reinforcement:** Steel reinforcement is recommended at the center of the counter top and on all supporting edges. This is typically ladder wire or 4 x 4 x 6 gauge expanded wire mesh combined with #3 pencil rod bar, which is typically placed near the bottom of the slab or at a minimum of ¼ inch below the top surface. Commonly sized rebar pieces are usually too thick for counter top pours and are not recommended.

DIRECTIONS: Mixing: Speccrete® Counter Cast can be mixed by hand using a “jiffy paddle type” mixer at low speed, or it can be machined mix by use of a concrete drum paddle mixer. Measure out the required water amount and add to the pail or mixer before adding the dry material to ensure easier mixing with less dusting. A 50 lb bag of Speccrete® Counter Cast will require anywhere between 3.00 to 3.50 quarts of water depending on the mix consistency desired. Periodically scrape the sides of the mixer or pail at regular intervals to ensure there is mix uniformity with no clumps. The lower water ratio can be used to produce a more “dough-like” consistency which is usually preferred for pressed (upside down) placements. Note - Pea gravel or other coarse aggregate additions, along with small amounts of vibration can be used with Speccrete® Counter Cast for hard trowel cast in place pours, but they are not typically recommended for pressed in place (precast) pours. If pea gravel is to be added, do not exceed 13 lbs (approximately 1 gallon by loose volume) per 50 lb bag of Speccrete® Counter Cast. When adding pea gravel, the mix water will have to be reduced accordingly to maintain correct placement consistency. Specco recommends a test mix or trial batch to become familiar with product properties before actual product placement. If adding integral pigment color to the Speccrete® Counter Cast mix, make sure to

DIRECTIONS: Mixing (continued): add even, measured amounts of both color and water to each batch to ensure surface uniformity and consistent color distribution in the final casting. **Placement:** Speccrete® Counter Cast should be placed into the mold at both ends first, worked into the edges to fill all voids, and then floated or screeded towards the center. Use small amounts of vibration for proper consolidation as necessary. Do not hard trowel the surface until after initial set is obtained. The use of a magnesium trowel rather than steel is recommended to avoid burning the surface. Do not overwork the final surface to avoid trowel burn. **Curing:** Wet curing by misting the surface is recommended for cast in place or troweled surface for a minimum of 2 days. Speccofilm Easy Trowel can also be used as both a moisture retainer and troweling aid, and is especially helpful for exterior applications. Avoid direct sunlight, high air movements and wind, or high heat which can lead to shrinkage or increased chance of curling. For precast pours, if a moisture cure room is not available for multiple pieces, allow the mix to cure for 24 hours, then lift the slabs onto cantilever type racking to allow the bottom to air cure evenly with the top surface, then proceed to wet cure the entire slab for 2-3 days and let dry. **Note of Caution:** The fine fibers used in this mix are barely visible on the casting after final troweling, and they will normally be removed from the surface during the grinding and polishing process. However, if a hard trowel finish is desired for the countertop, the fibers may be quickly and safely removed by gently waving a propane torch approximately 1 inch over the surface. This procedure should obviously be done prior to any topcoat application of sealers which may be of solvent based composition and would present a combustible condition if they were freshly applied and exposed to open flame. **Polishing & Sealing:** Allow the surface to cure for 2 days before polishing the surface. Start with a #200 grit sanding, followed by #400 grit. At this stage, a one coat liquid surface “densifier” sealer such as Specco Diamond Seal Hardener can be applied to help strengthen the counter top and consolidate and harden the internal cement matrix. After the surface has dried, continue polishing with a 800 grit, then 1500 grit and up to 3000 grit sanding to obtain a highly reflective, dense surface. Next, seal with either a solvent based satin or high gloss acrylic, or use optional two component topcoats such as epoxies, polyurethanes or polyureas for an even harder, more scratch, stain and chemical resistant finish. Allow this surface to cure for approx. 3-4 days, then topcoat with Specco Diamond Shine Polish or optional carnuba / beeswax that can be buffed or polished to a high sheen.

CAUTIONS: Mix Speccrete® Counter Cast for approximately 3-5 minutes minimum to ensure uniformity. Do not mix more material than can be placed in 30-40 minutes. The temperature of the mixed material should be between 60°F to 80°F for ideal working properties. Use only potable water for mixing. Clean mixing equipment between batches. When mixing Speccrete® Counter Cast, the water-to-powder ratio is very critical, do not vary the specified water amount or over water. Do not re-temper or remix hardened material. Use of any extension aggregates will alter physical properties as listed. Protect from excessive sun, low humidity, rain and wind exposure, as well as temperature extremes that could prevent inadequate curing. Do not apply to overly cold or hot surfaces. Colder temperatures will extend open time and reduce rate of strength gain. Counter tops made with Speccrete® Counter Cast are subject to typical concrete staining, wear and abrasion, and should always be sealed for added surface protection, pigment color retention and scratch resistance.

WARNINGS: Contains cement and silica, avoid inhalation of dust. Wear gloves, safety goggles, and OSHA approved dust respirator during mixing and placement. Refer to product M.S.D.S. (Material Safety Data Sheet) for additional safety information. Do not take internally. Avoid prolonged contact with skin. **FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. NPCS HMIS SAFETY RATINGS:** HEALTH = 2, FLAMMABILITY = 0, REACTIVITY = 0, PROTECTION = E

PACKAGING: 50 lb. (22.70 kg) bags **STORAGE:** 40°F to 90°F **SHELF LIFE:** 1 year properly stored

FREIGHT CLASS: Item #42130, Sub 0, LTL 50 -Cement based grouting material in bags

LIMITED WARRANTY: This product is warranted to be of merchantable quality when used according to the instruction herein. It is not warranted to be suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of the product as purchased, if found to be defective upon inspection by the manufacturer. This limited warranty is issued and accepted in lieu of all other expressed warranties and explicitly excludes liability for consequential damages. Buyer assumes all risk and liability resulting from the use of this product. Revised – 01-10-09