



Area of use

CM 960 Industrial Super Top is a premium quality pumpable, highly abrasion resistant, industrial self-leveling compound. The product is intended for both interior and exterior use on substrates of concrete. Top coating is recommended for aesthetics and stain reduction, however, is not necessary where aesthetics are not important, such as warehouse applications. CM 960 Industrial Super Top accepts direct application of most professional coatings, such as acrylic, polyurethane, polyurea, fluorosurfactant penetrating sealers, and epoxy-based systems as well as Terrazzo. CM 960 may also be grinded, polished and pigmented both topically and integrally.

Pre-treatment

The substrate should be clean and free of dust, cement skin, grease and other impurities that can prevent adhesion. Adhesion and surface resistance of the substrate should be no less than 217 psi (1.5 MPa). Control joints, construction joints and cracks in the substrate which may be subject to movement after installation of CM 960 Industrial Super Top must be honored and maintained as joints in the new surface. If Calcium Chloride moisture testing of the substrate is to be performed, it must be done prior to the application of CM 940 as a false high reading will occur due to the tests being inaccurate on calcium aluminate leveling compounds. Always prime the substrate with PP 600 and allow to dry before pouring (see PP 600 datasheet for proper dilution and installation directions). In terms of the primer forming a film, the temperature of the substrate must not be below 50 °F. For best results, the ambient temperature in the work area should be between 50 and 77 °F. At higher or lower temperatures, the time for curing will shorten or extend. Protect the product from excessive heat, excessive cold and draft conditions during and after the installation. It is recommended that the installation should be done with a proper air ventilation from an HVAC system. With the risk for cracks due to shrinkage or settings in the subfloor, a concrete surface should not be leveled within the first 28 days after casting. As a recommendation the RH in the concrete should have reached RH 90 % as the upper limit for pouring the CM 960. Use the Combimix form foam for edging. In order to avoid drainage pipes from getting clogged, always make sure the drains are properly sealed before pouring.

Mixing

Mix the dry powder with max 3.2 qt (3.0 L) of water, max 15 %, per 44 lb (20 kg) bag.

Manual mix: Mix with a heavy duty ½" (13 mm), 650 rpm minimum drill and a whisk to obtain a lump free consistency.

Mixing pump: Mixing pump intended for this purpose. Start pump at minimum of 120 gallons of water per hour and adjust as necessary to yield a self-leveling consistency. Please note that the production capacity and speed of the pump will dictate the gallons of water ratio per hour.

The Combimix slump test must always be carried out to ensure the product performance and that the mixture is homogenized and free from separation. The correct water mixture can be tested using a slump test with a cylinder with Ø 1.18" and a height of 1.97" (Ø 30 mm and a height of 50 mm) on 11.8" x 11.8" (300 x 300 mm) plexiglas plate. With the correct water mixture, the spread should be max 4 1/2" (115 mm) for application thickness 3/8"-3/4" (10-20 mm). The slump test also checks that the material is well blended and that there is no separation.

Application

The mixed material is applied by hand, or pumped out onto the substrate in lengths. Each new ribbon is added to the old one as soon as possible so that the material can blend together and create an even surface. The width of the ribbons can be adjusted to the capacity of the mixing pump and the thickness of the covering. Set thickness using a Gauge Rake and smooth the mixed material using a spike roller or a toothed trowel. Working time of the product is approx. 15 to 20 minutes. Application thickness 3/8"-3/4" (10-20 mm).

Post-treatment and curing

You can easily shape or cut the semi-hardened self-leveling underlayment material before it fully dries. Protect the surface for up to 24 hours after installation. Material can be walked on after 1-3 hours. The product is paintable with epoxy or similar after 3-5 days depending on the thickness. Sealers should be applied to reduce topical staining and must be used for applications where aesthetics are important. The guided time for dehydration down to RH 85 % of the product is

Technical information

Compressive Strength (ASTM C-349-02)	4,350 psi
Flexural Strength (ASTM C-348)	1,087 psi
Fire standard (EN 13813)	A1 _n
RWA	20
Tensile Bond Strength	> 217 psi
Surface Tensile Bond Strength (7 days)	> 217 psi
Surface	Concrete
Pour depths	3/8"-3/4"
Weight (dry state)	118 lbs/ft ³
Weight (cured state)	148 lbs/ft ³
Ideal Slump	max 4 1/2"
Working time	15-20 min
Final set	1-3 hrs
pH (wet state)	apx. 11
Water damage resistant	yes
Shrinkage (ASTMC-426-99)	0.03-0.05 %
Emissions (ISO 16000-10 [indoor air quality part 10])	-

Coverage per 44 lb. (20 kg) bag

3/8" (10 mm) thickness	apx. 20 sq. ft. (1.7 m ²)
1/2" (12 mm) thickness	apx. 10 sq. ft. (0.9 m ²)
3/4" (20 mm) thickness	apx. 6 sq. ft. (0.5 m ²)

Contributes to LEED points



3/8" (10 mm) per week. The guiding value assumes a curing temperature of approximately 68 °F, 40 % RH and proper air flow.

Densify to increase surface durability: Lythic Densifier penetrates CM 960 Industrial Super Top, adding silica to increasing hardness and durability. When polishing the CM 960 Industrial Super Top overlay, Lythic Densifier is sprayed on the surface, with a pump sprayer, after the first polishing step. "Back roll" Densifier, with a short nap roller, into the overlay to evenly wet the surface. Stay off the surface until completely dry. Dye colors can be applied before Densifier following manufacturer's instruction. After the final diamond polishing step is complete, application of Lythic SPD Protector is recommended.

Seal to protect from staining and etching: Lythic SPD Protector bonds tightly to the surface of Combimix overlays and effectively blocks staining and etching from oils and acidic materials. A two part system, SPD is applied to Lythic Densified overlays with a short nap micro-giver roller. SPD rolls out white and dries to a thin clear protective film. After 24 hours, burnish with a red pad or a hogs hair pad.

NOTES: Protect product from excessive heat or draft conditions during the curing process. This product is intended to be used as an wear surface for industrial traffic. This product is not a vapor barrier and will allow free passage of moisture. Substrates should be tested prior to the installation of Combimix product.

Where substrate moisture exceeds the maximum allowed Combimix recommends the use of AC TECH 2170 moisture migration product. for more information go to: www.actechperforms.com

For interior use only. The temperature should maintain between 50–77 °F (10–25 °C) during and up to 72 hours after application. Not compatible with MMA (Methyl Methacrylate). Not recommended for use over radiant heating systems. Not recommended over adhesive residue. Not recommended over vinyl flooring.

Storage and packaging

Store in a dry environment, on an unopened plastic-coated pallet, six months from the date of production. The date of production is printed on the packaging. CM 960 Industrial Super Top is delivered in 44 lb (20 kg) bags and in big bags.

Residual products and safety information

Empty bags can be burned. Any remaining, dry powder that has been stored properly can be used again. Hardened material should be disposed of as construction waste. Do not wash the product into the sewage system. The cement in the product has a reduced level of chromate. Follow regulations in each respective country.

Health, environment, safety and technical service documents

For current version of product information, contact Combimix at info@combimix.com Previously undated and dated issues are no longer valid. For more information contact our sales organization.

Notice

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