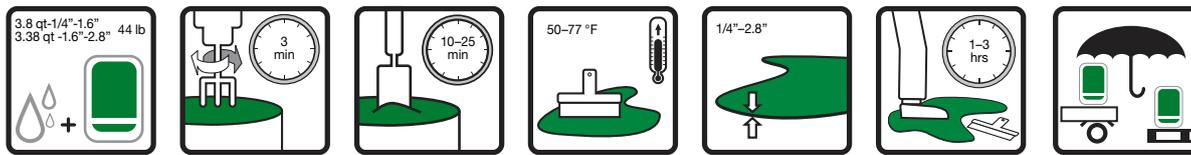


Combimix datasheet

CM 700 Basic

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Area of use

Combimix CM 700 is a pumpable, self-leveling underlayment. The CM 700 is an economical grade calcium aluminate cement-based self-leveling underlayment suitable for new construction and renovation. The product is intended for indoor use to create a new durable, flat and smooth surface on substrates of concrete, lightweight concrete, stone and ceramic tiles.

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 72 psi. 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 700. 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 3.8 qt (3.6 L) of water, max 18 %, per 44 lb (20 kg) bag for application thickness 1/4"–1.6" (6–40 mm) and with max 3.38 qt (3.2 L) of water, max 16 %, per 44 lb (20 kg) bag for application thickness 1.6"–2.8" (40–70 mm).

Manual mix: Mix with a heavy duty 1/2" (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 125 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 5 5/16" (135 mm) for application thickness 1/4"–1.6" (5–40 mm) and max 4.92" (125 mm) for application thickness 1.6"–2.8" (40–70 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 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. The material requires a light treatment with a toothed trowel to provide maximum smoothness. Working time of the product is apx. 10 to 25 minutes. Application thickness 1/4"–2.8" (5–70 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. Combimix recommends that no sweeping compounds be used on products after installation is complete. A simple dilution rate of 1:5 primer PP 600 and water can be used to minimize dust if necessary. Apply it with a high pressure pump type sprayer. Always make sure that the material is sufficiently dry before it will be covered. The guided time for dehydration down to RH 85 % of the product is 0.39" (10 mm) per week. The guiding value assumes a curing temperature of approximately 68 °F, 40 % RH and proper air flow.

NOTES: This product is not intended to be used as a wear surface. It is also not intended for exterior use. This product is not a vapor barrier and will allow free passage of moisture. Follow the directions of flooring manufacturer in regards to maximum allowable moisture content for floor covering. Substrates should be tested prior to the installation of Combimix product.

Technical information

Compressive Strength (ASTM C-349-02)	4,050 psi
Flexural Strength (ASTM C-348)	867 psi
Fire standard (EN 13813)	A1 _n
RWFC	550
Tensile Bond Strength	> 145 psi
Surface Tensile Bond Strength (7 days)	> 145 psi
Substrates	Concrete, lightweight concrete, stone and ceramic tiles
Pour depths	1/4"– 2.8"
Weight (dry state)	111 lbs/ft ³
Weight (cured state)	128 lbs/ft ³
Ideal Slump 1/4"–1.6" 1.6"–2.8"	max 5 5/16" max 4.92"
Working time	10–25 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])	< 10 µg/(m ² h)

Coverage per 44 lb. (20 kg) bag

1/4" (6 mm) thickness	apx. 22 sq. ft. (2.0 m ²)
1/2" (12 mm) thickness	apx. 11 sq. ft. (1.0 m ²)
3/4" (19 mm) thickness	apx. 5.5 sq. ft. (0.5 m ²)

Contributes to LEED points



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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

Storage time 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. May be used after 6 months but properties such as flow rate, hardening and drying times will be extended. CM 700 Basic 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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