



Overlay Mix

*Flex-c-ment™ Overlay Mix is a Polymer Modified Cementitious Flooring System,
Manufactured and Distributed by: Consolidated Aggregates, LLC
1205 Palestine Road, Picayune, Mississippi 39466*

A. COMPOSITION

Flex-c-ment™ Overlay Mix is a polyacrylate, modified cementitious, overlay system that can be applied over concrete, wood or metal to achieve the appearance stone, wood, tile or brick. It is a water-phase elastomeric resin composition incorporating resin primers, cement, cement modifiers, polymers, aggregates. The components are supplied in a Part A, dry, 60 Lb. bagged mix of cement, aggregates and additives and a Part B liquid polymer modifier in 5 gallon pails.

B. USES

Flex-c-ment™ Overlay Mix is typically used as flooring, deck, driveway, patio and sidewalk resurfacing in both commercial and residential applications. It's use can be enhanced by incorporating the use of pigments, stains and sealers to finish the coloring and sealing process. Flex-c-ment™ Overlay Mix can be used as a full thickness counter top or for counter top resurfacing.

Flex-c-ment™ Overlay Mix can be installed vertically to form an integral covered baseboard or stair risers. It can be used with stencils, stamps, troweled, sprayed or worked freehand.

C. CAUTIONS

Flex-c-ment™ Overlay Mix must be installed over a stable substrate using proper preparation and installation procedures. All expansion/cut joints in the existing substrate must be honored. Extra joints may be added as deemed necessary by the installer.

Flex-c-ment™ Primers and Modifiers must be used with the Flex-c-ment™ Overlay Mix and are required for the Flex-c-ment™ warranty to be valid. These have been chemically engineered to be compatible with Flex-C-Ment products to provide the maximum physical properties and prevent loss of bond to the substrate.

D. PHYSICAL PROPERTIES

1. **Compressive Strength** ASTM C 39 4,000 psi
2. **Flexural Strength** ASTM C 78 515 psi
3. **Adhesion** MIL-D-3134 Para. 3.7.14 (Shear from steel plate after 96 hours ... 320 psi
4. **Water Absorption** ASTM C 642 4.2%
5. **Indentation Characteristics** (Steadily Applied Load) MIL-D-3134, Para. 4.7.4.2.1 (2000 lbs. on 1" steel ram imposed for 30 minutes) 1.1%
6. **Indentation Characteristics** (Impacted Load) MIL-D-3134, Para 4.7.3 (2 lb. Steel ball dropped from 8-foot height) 0.008" indent. No loosening or cracking.
7. **Tensile Strength** ASTM C190 620 psi
8. **Resistance to Elevated Temperatures** MIL-D-3134, Para. 4.7.5.1.... No flow or Slip
9. **Flammability** ASTM E162 Flame Spread Index. 0.47. Smoke Deposited. Less than 0.1 mg. ASTM E84.. Flame Spread Rate - 0, Smoke Density Factor - 3, Fuel Contribution Rate - 0
10. **Abrasion Resistance** ASTM C 779 032 in"
11. **Coefficient of Thermal Expansion** ASTM C531 6.8 E-04
12. **Electrical Conductivity** Dielectric
13. **Slip Resistance** (Coefficient of Sliding Friction) On smooth, non-textured finish with no sealer: Dry Leather 0.43, Dry Rubber 0.59, Wet Leather 0.68, Wet Rubber 0.70
Slip Resistance is more related to the type of finish and sealers used, rather than the Flex-c-ment™ Overlay Mix itself.
14. **Freezing and Thawing** ASTM C 666/C 666M-03 (Standard Test Method for Resistance of Concrete to Freezing and Thawing, Procedure A - Freezing and Thawing in Water) The relative dynamic modulus indicates that Flex-c-ment™ Overlay Mix is freeze-thaw durable after 300 cycles.

Product Technical Data Sheet

Benefits:

- Many Methods of Application, i.e., Stencils, Stamps, Troweled or Freehand
- Warranted Bond Ability
- Moisture Tolerant and Breathable. Very Low Influence from Concrete Vapor Emission.
- No Volatile Organic Compound Emission.
- Contributes to USGBC credits under LEED rating system.
- Abrasion and Wear Resistant.
- Low Maintenance Costs.
- Wide Range of Textures and Colors.
- Water Clean-up.

Modified ASTM C 666 - Procedure A
Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing¹

Sample Identifications	Freeze-Thaw Cycles	Length Change, %	Mass Change, %	Relative Dynamic Modulus, %
	0	0.00	0.00	100
	37	0.01	- 0.22	97
	69	0.02	- 0.40	95
	99	0.03	- 0.58	97
Overlay 1, 2 and 3	129	0.02	- 0.62	94
	163	0.03	- 0.45	93
	193	0.02	- 0.50	98
	222	0.02	- 0.58	98
	232	0.03	- 0.63	98
	265	0.04	- 0.72	98
	301	0.03	- 0.81	98

E. CLEANABILITY

In general, the more aggressive the finished surface the greater the coefficient of friction and corresponding skid resistance, the more difficult to clean. The smoother the finished texture the easier the surface is to clean, but there is a loss of skid resistant properties. Cleaning and disinfecting compounds and cleaning techniques can affect the color, gloss, texture and performance of the system. As a precautionary step, Flex-c-ment™ recommends that the end-user test their cleaning and disinfecting compounds on a non-conspicuous area before use.

Follow sealer manufacturer recommendations for maintenance and cleaning.

Slip resistance is greatly effected by the sealers and texture used. Follow sealer manufacturer recommendations for slip resistance and prevention.

F. COVERAGE

Aproximate Surface Area Coverage:

<u>Applied Thickness:</u>	<u>Coverage:</u>
1/4 "	27 Square Feet
3/8"	18
1/2"	13.5

G. SHELF LIFE

If properly stored the expected shelf life can exceed 6 months. However; it is recommended that Flex-c-ment™ Overlay Mix be used as soon as possible after delivery. Rotate stock to use oldest inventory first. Store under roof and keep dry.

LIMITED WARRANTY:

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN Flex-c-ment™ - Consolidated Aggregates, LLC . INVOICE ARE MET.

Flex-c-ment™ warrants to the purchaser of its products that such products are free from manufacturing defect. Flex-c-ment™ does not warrant or guarantee the workmanship performed by any person or firm installing its products. Flex-c-ment™'s obligation under this warranty is limited solely to the original purchaser and solely to replacement in kind of any Flex-c-ment™ product which may prove defective in manufacture within three years from date of installation, provided said product was stored correctly and installed within the product's shelf life, by the original purchaser and upon examination, by Flex-c-ment™, shall be deemed defective.

IN NO EVENT SHALL Flex-c-ment™ BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND ALL OTHER OBLIGATIONS OR LIABILITIES ON Flex-c-ment™'s PART, AND WE NEITHER ASSUME NOR AUTHORIZE ANY PERSON OR PERSONS TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF A Flex-c-ment™ PRODUCT. THIS WARRANTY SHALL NOT APPLY TO ANY OF Flex-c-ment™ PRODUCTS, WHICH HAVE BEEN SUBJECT TO ADULTERATION, ALTERATION, ABUSE OR MIS-USE. Flex-c-ment™ MAKES NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES, PARTS OR MATERIALS NOT SUPPLIED BY Flex-c-ment™ , WHICH ARE USED IN CONNECTION WITH ITS PRODUCTS. THE TERM "ORIGINAL PURCHASER" IN THIS WARRANTY MEANS THAT PERSON, CORPORATION OR ENTITY TO WHOM Flex-c-ment™ PRODUCTS CORP. SOLD ITS PRODUCT OR PRODUCTS. ANY ACTION TO ENFORCE ANY WARRANTY OR FOR BREACH OF CONTRACT OR ARISING OUT OF ANY CLAIM AGAINST Flex-c-ment™ SHALL BE COMMENCED AND MAINTAINED ONLY IN A COURT OF COMPETENT JURISDICTION IN THE CONTINENTAL UNITED STATES OF AMERICA. THE PURCHASER ACCEPTS THESE TERMS AND CONDITIONS, AND HEREBY EXPRESSLY WAIVES ANY CLAIM TO ADDITIONAL DAMAGES.