

Specifications for Combimix Easy Shine Floor

LP 740 Concrete Topping with Lythic Densifier/Sealer system

1 GENERAL

1.1) RELATED DOCUMENTS

- A) Drawings and general provisions of Contract, including General and Supplementary Conditions and Divisions apply to this Section.

1.2) SUMMARY

- A) This Section includes COMBIMIX LP 740 Self-leveling Calcium Aluminate Floor Topping installation with densified and sealed finish from Lythic Solutions.
- B) Furnish all labor, material, equipment and services necessary for the installation of Combimix topping in accordance with the industry recommended practices.
- C) Application of Lythic Densifier and Lythic SPD Protector to harden and prevent staining and acid etching.
- D) Combimix LP 740 must be cured a minimum of 24 hours at 70°F and 50% RH prior to polishing.

1.3) REFERENCES

- A) ASTM C109 Modified / Air-Cure Only – Standard Test Methods T for Determining the Compressive Strength of Hydraulic Cement Mortars using 2 in or 50mm cube specimens
- B) ASTM 1028, Co-efficient of Friction
- C) ASTM D523 Reflectivity

1.4) SUBMITTALS

- A) Submit the following in accordance with division section “Submittal Procedures”.
- B) Product data for the Combimix LP products used to include physical characteristics, product limitations and manufacture’s installation instructions
- C) Product data for Lythic Densifier and Lythic SPD Protector to include physical characteristics, manufacturer’s instructions for installation, performance and testing data
- D) Maintenance procedures provided in the Lythic maintenance guide for to include use of Lythic Cleaner with fiber maintenance pads.

1.5) QUALITY ASSURANCE

- A) Installer qualifications: a certified Combimix Elite Contractor or a distributor designated installer.
- B) Manufactures to provide confirmation of installation procedures.
- C) Place field sample panel of topping material and finish to required specification. Accepted field sample shall remain in place and shall be guide to acceptance of balance of installation. The sample is only to be used as an approximation of the finished floor.

- D) General Contractor shall protect areas to receive self leveling topping at all times during construction to prevent oils, dirt, metal, excessive water and other potentially damaging materials from affecting the finished surface. Protection measures below shall begin immediately after the concrete topping is poured:
 - i) All hydraulic powered equipment shall be diapered to avoid staining of the concrete
 - ii) All vehicle parking shall be prohibited on the finished slab area
 - iii) No pipe cutting machine shall be placed on the finished floor slab
 - iv) All painters will use drop cloths on concrete
 - v) All trades will be informed that topping must be protected at all times
- E) Environmental Limitations
 - i) 24 hours prior to COMBIMIX installation, during installation, and continuing until completion of the finished floor, the substrate must have a temperature above 50°F and an air temperature of 50°F to 77°F
 - ii) Proper ventilation with a continual air flow must be on during installation and 72 hours after installation
 - iii) Installed topping shall be cured a minimum of 24 hours or at which point equipment can be put on the slab and does not cause indentation.
 - iv) Installed topping area shall be closed to traffic during finish floor application for the time recommended by manufacture
- F) TOPPING MIX DESIGN
 - i) Combimix LP740 shall be mixed and placed in strict accordance with manufacture's recommendations, with allowance for the following special mix design:
 - a) Engineer / Architect shall determine the saw cut patterns, color and layout
 - b) Place topping to achieve as true and smooth a top surface as possible. Mounds or dips not acceptable
 - c) Installation contractor shall control overall flatness and levelness and may be required to pre-level the area prior to installing the 1/8" thick minimum finish topping.

2 PRODUCTS

2.1) INSTALLATION MATERIALS

- A) Self Leveling Concrete Topping shall be COMBIMIX LP740
- B) Concrete Primer shall be COMBIMIX PP600
- C) Water: potable and not detrimental to topping mix material
- D) Densifer and SPD Protector from Lythic Solutions
- E) Cleaning shall be done in accordance with Lythic Maintenance Guide.
- F) Joint and crack filler can be a epoxy or cementitious based depending upon site conditions and at the discretion of the installation contractor
- G) Moving joints (all expansion and isolation joints) to be honored up through the topping by the use of saw cuts and flexible sealers
- H) No special aggregates will be added to the LP740.

2.2) Application equipment for Densifier/Sealer

- A) Pump sprayer
- B) Microfiber roller or applicator
- C) High speed burnisher
- D) Hand grinder with burnishing pads for edges

3 EXECUTION

3.1) PREPARATION

- A) Installer shall examine and approve concrete substrate for conditions affecting performance of finish
- B) Provide a clean substrate free from dust, oil or any contaminates which may contribute to decreased bond
- C) Prepare any open joints or cracks using materials described in 2.1 B and 2.1 H above
- D) Prime the prepared concrete using COMBIMIX PP600 Primer, in strict accordance with manufacturer's recommendation

3.2) TOPPING APPLICATION

- A) Install topping in accordance with manufacturer's instructions to include careful monitoring of the amount of mix water being used
- B) If needed place grade levels to conform to elevation details on drawings
- C) Using a broom, prime surface using a 3:1 (water:primer) ratio saturating the floor but do not leave puddles, allow to dry (1-2 hours)
- D) Pour COMBIMIX LP740 at 1/8" minimum (up to 1 1/4" maximum in a single pour) in a neat pour.
- E) Observe substrate and ambient temperature as mentioned in 1.5.E.i. above

3.3) DENSIFYING & SEALING

- A) In accordance with manufactures instructions, dilute Lythic Densifier concentrate with 4 parts clean water to 1 part product.
- B) From a pump spray applicator, wet out the surface of the overlaid floor with an even spray. Do not apply enough to puddle on the surface. After drying spray a second application, lighter than the first and allow to dry.
- C) Mix Lythic SPD Protector A and B in equal parts in accordance with manufactures instructions. Apply to dry densified surface with microfiber roller or pad.
- D) SPD Protector finished build to be 1 to 2 mils.
- E) After twelve hours, burnish with a red fiber pad on a high speed burnisher. Full cure is achieved 72 hours after application.

3.4) PROTECTION

- A) Cover with construction paper and masonite if construction is going to proceed on top of the finished surface. Allow 2 weeks from time of COMBIMIX installation before using wheeled carts or allowing heavy traffic unless the surface is covered with construction paper and masonite.

4 CONTACT

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