

**FLEXSTONE COATINGS INC.**  
**2021 Operation and Maintenance Manual (OMM)**  
Sundeck and Flat Roof Waterproofing System

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## GENERAL

### 1.1 SECTION INCLUDES

- .1 Flexstone System-X cold applied 4-ply Textured Stone finish seamless membrane waterproofing system for patio decks and vehicular traffic.

### 1.2 REFERENCES

- .1 Canadian Construction Materials Centre (CCMC) Evaluation Report 13473-R Article Section 9.26.2.1 – CGSB-37-GP-56M Flat Roof Deck approvals
- .2 ASTM D-412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers & Polyurethane coatings for balcony decks and flat roof decks.

### 1.3 SYSTEM DESCRIPTION

- .1 Textured Stone System X is a reinforced system consisting of three distinct layers of liquid-applied urethane coatings along with Acrylic chips. Once cured forms a seamless 4-ply balcony deck and roofing membrane. (Reinforcing not required)

### 1.4 QUALITY ASSURANCE

- .1 Products of This Section: Manufactured to ISO 9000 certification requirements.
- .2 Perform Work in accordance with manufacturer's instructions.
- .3 Applicator Qualifications: Company specializing in performing the work of this section with minimum three (2) years of experience and approved by the manufacturer.

### 1.5 MOCK-UP

- .1 If required, provide one fully finished mock up to represent finished work including all necessary details for completion, or as approved by the Consultant.
- .2 Locate mock up where directed by Consultant.
- .3 Approved mock-up may remain as part of the Work.

### 1.6 DELIVERY, STORAGE, AND PROTECTION

- .1 Transport and store products in accordance with manufacturer's instructions.
- .2 Make reasonable effort to keep products from damage or contamination.

### 1.7 SITE CONDITIONS

- .1 Ambient Conditions: Maintain ambient temperatures above 7-10 degrees C for twenty-four (24) hours before and during application and until liquid or mastic accessories have cured.

### 1.8 WARRANTY

- .1 Canadian Master Specification (CMS) Section 07 14 00
- .2 Provide a 10-year warranty to include coverage for failure to meet specified requirements. Provide 10-year manufacturer warranty for waterproofing failing to resist penetration of water, except where such failures are the result of structural failures of building. Any movement due to temperature changes is not considered a structural failure.
- .3 For warranty repair work, remove and replace materials concealing waterproofing.

## PRODUCTS

### 2.2 MANUFACTURERS - FLEXSTONE COATINGS INC & TUFFLEX POLYMERS, LLC

Product: Flexstone System X

Substitutions: Not permitted without written approval from Consultant.

### 2.2 MEMBRANE COMPOUND MATERIAL - FLUID SEAMLESS COATINGS

- .1 Seamless Waterproof Membrane: First TUFF base coat is an odorless self-leveling quick set solvent-free Water Catalyzed Urethane (WCU). AR colour intermediate coat is then applied with coloured Acrylics chips. Urethane Clear coat then applied.

Flexstone Multi-Ply System X should be 90-100 mils total thickness including finish top coats and blended Acrylic chips. Roughness from acrylic chips provides slip resistance through final clear coat & can be varied. Polypropylene slip-resistant beads can be added to the Aliphatic Clear coat for additional slip resistance is required.

- .2 Tensile Strength: 1000 - 1200, to ASTM D-412.
- .3 Elongation: 600-700%, to ASTM D-412.
- .4 Tear Strength 130 - 140 pli, to ASTM D-1004
- .5 Moisture Vapour Transmission: 69.4 ng/Pa\*s\*m2, to ASTM D-412.
- .6 Product: Flexstone, manufactured by Flexstone Coatings Inc & Tufflex Polymers.

### 2.3 ACCESSORIES

- .1 Surface Primer: compatible with membrane compound; as recommended by membrane manufacturer - if applicable (depends on substrate coated).
- .2 Fluid flashings: Elastomeric compound as recommended by manufacturer and compatible with membrane. Reinforcing fabric used at walls or as needed.
- .3 Expansion Joint Cover Sheet: Flexstone special adhesive backed fabric seam tape material designated for and compatible with membrane.
- .4 Perimeter Drip flashings - Standard 2" x 2" pre-painted 30-gauge metal is acceptable by membrane manufacturer unless otherwise specified by consultant.
- .5 General items - as recommended by membrane manufacturer.

## EXECUTION

### 3.1 EXAMINATION

- .1 Ensure that existing membrane is well adhered to substrate before proceeding.
- .2 When applying over existing membranes; Vinyl often shrinks at walls and perimeter drip-edge flashings. Cut weak areas out, remove entirely if old coating is peeling up.
- .3 Follow all manufacturers' instructions in addition to instructions provided herein, if any conflicts or uncertainties are encountered, contact Consultant right away and do not continue until notified by Consultant in writing. Canadian Master Specification (CMS) Section 07 14 00 January 2017 Fluid Applied Waterproofing.

### 3.2 PREPARATION

- .1 Install drip-edge flashing at deck perimeter where required.  
Rough up the top of the drip edge with sander or grinder to ensure good adhesion of the base coat to top edge of flashing.
- .1 To prevent product from running over vertical face of drip edge flashing, apply Flexstone Red Poly perimeter tape. Leave lip over at least 1" above deck surface to allow Flexstone to level. This tape is very strong with a quick release adhesive.
- .2 Ensure any concrete topping is free from moisture before installation of Flexstone.
- .3 If concrete surface is smooth, use Flexstone #3 primer/sealer before proceeding.
- .4 Follow all manufacturers' instructions in addition to instructions provided herein, and if any conflicts or uncertainties are encountered, contact Consultant right away and do not continue until notified by Consultant in writing.

### 3.3 APPLICATION

- .1 Install fluid-applied waterproofing to manufacturer's written instructions.
- .2 Application instructions and installation video are on [www.flexstones.ca](http://www.flexstones.ca) (Navigate to: *About Flexstone / Installation*)
- .3 Seal balcony pedestals along with deck with fluid applied membrane.
- .4 Follow all manufacturers' instructions in addition to instructions provided herein, if any conflicts or uncertainties are encountered, contact Consultant right away and do not continue until notified by Consultant in writing.

### 3.4 PROTECTION OF FINISHED WORK

- .1 Do not permit traffic over unprotected or uncovered membrane during application.
- .2 Abstain from working over membrane installation until product has cured to manufacturer's specifications.

## MAINTENANCE

### 4.1 GENERAL CLEANING & DAY TO DAY MAINTENANCE

- .1 When possible, using a pressure washer is the most efficient way to clean your surface. Hold the nozzle approximately 10" from the deck surface to clean dirt, algae and other debris off your surface.
  - a. Do not exceed 3500 PSI.
- .2 If you are unable to use a pressure-washer, simply mix a small amount of general-purpose cleaner with warm water. Using a stiff bristle brush or broom, scrub the surface with the cleaning solution and rinse thoroughly.
  - a. Avoid the use of solvents such as xylene or paint thinners.

### 4.2 SNOW AND ICE REMOVAL

- .1 Removing snow and ice off a Flexstone deck is simple. You can use a snow-shovel or snow-blower to remove snow from the surface. To remove ice, road-salt or de-icer can be broadcasted on the surface.
- .2 Exercise caution when removing ice from the surface. While Flexstone is inherently slip-resistant, ice formed on the surface can be a hazard.
- .3 Avoid the use of open flame or high-powered heat gun to melt ice.

### 4.3 MOVING HEAVY OBJECTS AND/OR FURNITURE

- .1 Moving furniture or heavy objects (ie. planters) around your Flexstone deck will not damage the surface; however, if there are jagged or sharp feet on any heavy objects, *lift before moving* - sharp objects may scratch the surface causing cosmetic issues.