

# FLEXSTONE BALCONY & ROOF DECK COATING SYSTEM GUIDE SPECIFICATION

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## FLEXSTONE (TUFFLEX) PATIO & ROOF DECK COATING SYSTEM (Section 07 14 00 Fluid-Applied Waterproofing for Patio Decks & Flat Roofs)

### SECTION 07 14 00 – FLUID APPLIED WATERPROOFING

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#### Part 1: GENERAL

##### 1.1 SECTION INCLUDES

- .1 Fluid-applied "Flexstone" seamless membrane waterproofing.

##### 1.2 REFERENCES

- .1 Canadian Construction Materials Centre (CCMC) Evaluation Report 13473-R
- .2 ASTM - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers & Polyurethane coatings for balcony decks and flat roof decks.

##### 1.3 SYSTEM DESCRIPTION

- .1 Waterproofing System: Textured Stone Finish system consists of three distinct layers of liquid-applied polyurethane coatings that, once cured form a seamless, monolithic balcony deck and roofing membrane. (Reinforcing fabric 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 experience and approved by the manufacturer.

##### 1.5 MOCK-UP

- .1 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:
- .2 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. Hairline cracking of concrete due to temperature change or shrinkage is not considered a structural failure.
- .3 For warranty repair work, remove and replace materials concealing waterproofing.

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## Part 2: PRODUCTS

**2.1 MANUFACTURERS:** Flexstone Coatings Inc. & Tufflex Polymers LLC.  
Product: **FLEXSTONE (System X)**  
Substitutions: Not permitted without written approval from Consultant.

### 2.2 MEMBRANE COMPOUND MATERIAL

- .1 Seamless Waterproof Membrane: First coat is a Cold fluid applied solvent-free Hybrid Water Catalyzed Urethane (WCU) base coat which self levels and sets up quickly. Flexstone Multi-Ply full system should be a min. of 80 mils total thickness including finish top coats (AR Colour Coat and AL Clear Coat).

PROPERTY	FLEXSTONE BASE	AR COLOUR COAT	AL CLEAR COAT	ASTM TEST
Tensile Strength	1200 (+/- 150) psi	3300 (+/- 300) psi	5000 (+/- 500) psi	D-412-80
Ultimate Elongation	600 (+/- 500)%	225 (+/- 50)%	175 (+/- 50)%	D-412-68
Hardness (Shore A)	60 (+/- 5)	90 (+/- 5)	90 (+/- 5)	D-2240
Abrasion Resistance (Calculated by inch loss)	n/a	n/a	Less than 0.001 (inch loss)	C-502 Tabor Abrasion, 1000 Rev. with 1000 Gm. Weight, CS-17 Wheel
Crack Bridging (before and after heat aging)	No evidence of cracking, splitting, pinholes or loss of adhesion.	No Cracking	No Cracking	No Cracking
Flexibility	No cracking or flaking	n/a	n/a	Mandrel Bend
Peel Adhesion (Base Coat)	Plywood: 1,303 N/m (Min CCMC Requirement: >525 N/m) Concrete: 1,043 N/m (Min CCMC Requirement: >874 N/m)			D-4541
Moisture Vapor Transmission	n/a	0.3 perms	0.2 perms	D-3389
Tear Resistance (Die C)	135 pli	275 pli	250 (+/- 50) pli	D-624

### 2.3 ACCESSORIES

- .1 Surface Primer: compatible with membrane compound; as recommended by membrane manufacturer - if applicable.
- .2 Liquid Flashings: Elastomeric compound as recommended by manufacturer and compatible with membrane.
- .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.

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## Part 3: EXECUTION

### 3.1 EXAMINATION

- .1 Ensure that existing membrane is adhered well to substrate before proceeding.
- .2 When applying over existing membranes; Vinyl often shrinks at walls and perimeter drip-edge flashings. Cut weak areas out and remove any materials 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.
- .2 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.
- .3 Ensure any concrete topping is free from moisture before installation of Flexstone.
- .4 If concrete surface is smooth, use Flexstone #3 primer/sealer before proceeding.
- .5 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.  
Application instructions exist on [www.flexstones.ca](http://www.flexstones.ca) under top menu TECH DATA at bottom of the page and a video exists at the bottom of the HOME page.
- .2 Seal balcony pedestals along with deck with fluid applied membrane.
- .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.

### 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.

**END OF SECTION**