

## PART 1 – GENERAL

### DESCRIPTION

- A Restoration of existing Metal roofing using low solids, silicone roof coating. This Specification is suitable to protect, restore and extend the service life of previously coated and non-coated metal roof systems.
- B. This Field Reference Guide (FRG) is designed for use over Structural Metal roof assemblies. It is not designed for Architectural Metal roofing.

### REVIEW / SUBMITTALS

- A. Product and Material Safety Data Sheets for each product indicated in this Specification.

### QUALITY ASSURANCE

- A Contractor represents and warrants that it is experienced in and qualified to perform the work described herein and can provide the necessary equipment, supervision, and trained workforce capable of completing the work in a safe, prompt, diligent, professional, and workmanlike manner and in accordance with all federal, state, and local laws, rules and regulations, this Specification and good roofing practice.
- B. Contractor shall inspect the project to examine the actual job and site conditions and must be familiar with local conditions and all things required to complete the work that will have a bearing on its costs and completion.
- C. All substrates must be peel tested for adhesion strength.

### PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Store all products in a dry, well ventilated, weather tight location at temperatures between 50° F and 99° F. Do not store products at higher temperatures or in direct sunlight. Protect all products from freezing or other damage during transit, handling and storage. Store and handle products in a manner that will ensure there is no possibility of contamination. Keep lids tightly sealed when not in use. Do not stack pallets more than two (2) high. If these storage conditions are not possible, special consideration in storage must be taken.

### PROJECT CONDITIONS

- A The Owner, Owner's Representative and Contractor shall thoroughly inspect and determine the condition of the roof system and substrate to be coated, and the suitability of the roof system for the application and performance of the coating system.
- B All surfaces and substrates which are to be coated must be properly prepared, clean, dry, structurally sound, and free from any moisture, dirt, contaminants, or any other conditions which may interfere with the application and performance of the coating system. Contractor shall approve the condition of the roof system and substrate prior to application of the roof coating system.
- C Wet insulation and any deteriorated or damaged decking or other materials must be removed and replaced before application of the coating system.

### WEATHER AND SURFACE TEMPERATURE

- A Contractor shall proceed with roofing work only when the existing and forecasted weather conditions and surface temperatures will permit work to be performed in accordance with Manufacturer's recommendations and good roofing practice, including:
  - B. Ambient air temperature must be 40°F and rising, but not above 120°F during the entire application and curing process.
- C Surface temperatures must be between 40°F and 150°F during application. If surface temperatures exceed 150°F during application, wait for roof to cool.

### WARRANTY

- A. Manufacturer will issue to the Building Owner a standard Material Only Warranty. Any warranties issued shall be for the coating application only and shall not provide coverage for the existing roofing system, including the substrate or structural deck.
- B. The Contractor may provide the Owner with a workmanship warranty as may be agreed to by the Contractor at time of contract award.

## PART 2 – PRODUCTS

- A. Silicone Roof Coating:
  - 1. Uniflex<sup>®</sup> 44-500 WHITE Silicone 22 (Low Solids)
- B. Sealants:
  - 1. Uniflex<sup>®</sup> One Flash™ Sealant 51-920 Gray
  - 2. Uniflex<sup>®</sup> One Flash™ Sealant 51-921 White
  - 3. Uniflex<sup>®</sup> Silicone Sealant 44-900 White
  - 4. Uniflex<sup>®</sup> Pitch Pan Roofing Sealant 58-360
- C. Primers:
  - 1. Uniflex<sup>®</sup> Rust Inhibitive Primer 34-520
  - 2. Uniflex<sup>®</sup> Acrylic Rust Inhibitive Primer 36-520

## PART 3 – EXECUTION PREPARATION

- A. After inspection and testing, the Contractor shall make all necessary repairs to the roofing system. Contractor shall not proceed with application of the coating system until all repairs have been made and any unsatisfactory conditions have been corrected, including any repairs which may be recommended by the Manufacturer or any design professional. Preparation of the roof substrate is the responsibility of the Contractor.
- B. Prior to power washing, Contractor shall repair all open seams in the roof system and flashings, and any other conditions affecting the water tightness of the roof. The roof system must be made sound and watertight. All repairs shall be made in accordance with NRCA guidelines and good roofing practice. Upon written request, Manufacturer can provide additional repair details. Upon written request, Manufacturer can provide additional repair details.

- C. Any mechanical equipment and roof penetrations including stacks, vents and pipes must be securely installed, properly sealed, and made completely watertight, and any abandoned pipes and vent stacks shall be removed, and holes filled in and roofed with like decking, insulation, and membrane, all in accordance with NRCA guidelines and good roofing practice. Upon written request, Manufacturer can provide additional repair details.
- D. All roof curbs and parapet walls shall be properly sealed and waterproofed in accordance with NRCA Guidelines and good roofing practice. Upon written request, Manufacturer can provide additional repair details.
- E. Pitch Pans: Remove one (1) inch of existing pitch pan material, fill and trowel to create a slight slope with Uniflex 58-360 Pitch Pan Roofing Sealant
- F. Contractor shall secure and seal all loose metal in accordance with NRCA guidelines and good roofing practice. Upon written request, Manufacturer can provide additional repair details.
- G. All skylights must be sealed and made watertight in accordance with NRCA guidelines and good roofing practice. Upon written request, Manufacturer can provide additional repair details.
- H. Detailing/Flashing:
1. All detailing and flashings shall be completed prior to installation of roof coatings and basecoats.
  2. All detailing and flashings shall be installed per Roof Coating Manufacturer's published literature. If details are not available, installer should contact the manufacturer.
  3. Existing assembly must be continuous and secure prior to application of roof coating.
- I. Horizontal laps
1. Metal panel laps opening more than one-eighth (1/8) inch wide gap shall be fastened together in accordance with Metal Roofing manufacturer published literature at spacing and rate required to ensure an uninterrupted substrate, eliminating gaps.
  2. Using a stiff bristled brush or sealant knife apply Uniflex 44-900 or 58-920/921 at (60 wet mils) extending a minimum one (1) inch on each side of seam until fully coated ensuring a smooth and uninterrupted watertight finish
- J. Ridge cap
1. Apply pressure to under lapping panel next to horizontal lap. Metal panel laps opening more than one-eighth (1/8) inch wide gap shall be fastened together in accordance with Metal Roofing manufacturer published literature at spacing and rate required to ensure an uninterrupted substrate, eliminating gaps.
  2. Using a stiff bristled brush or sealant knife apply Uniflex 44-900 or 58-920/921 at (60 wet mils) extending a minimum one (1) inch on each side of seam until fully coated ensuring a smooth and uninterrupted watertight finish.
- K. Formed ridge caps:
1. Formed ridge caps must have all seams sealed by applying Uniflex 44-900 or 58-920/921 at (60 wet mils) extending a minimum of one (1) inch on each side of seam until fully coated ensuring a smooth and uninterrupted watertight finish.
- L. Crimped standing seams:
1. Verify all crimps are undamaged and watertight. No additional detailing required.
- M. Un-crimped vertical Seams
1. Metal panel laps opening more than one-eighth (1/8) inch wide gap shall be fastened together in accordance with Metal Roofing manufacturer published literature at spacing and rate required to ensure an uninterrupted substrate, eliminating gaps.
  2. Using a stiff bristled brush or sealant knife apply Uniflex 44-900 or 58-920/921 Sealant 66-920 at (60 wet mils) extending a minimum one (1) inch on each side of seam until fully coated ensuring a smooth and uninterrupted watertight finish.
- N. Stacks and other penetrations:
1. Uniflex<sup>®</sup> 44-900 or 58-920/921 Sealant: Using a stiff bristled brush or sealant knife apply sealant at one-sixteenth (1/16) inch thick (60 wet mils) extending three (3) inches on horizontal and three (3) inches up vertical surface ensuring a smooth and continuous watertight finish.
  2. Inspect all sealants at counter flashings and replace as needed.
- O. Curb and Wall seams:
1. Using a stiff bristled brush or sealant knife apply sealant at one-sixteenth (1/16) inch thick (60 wet mils) install (1) layer of Uniflex roof sealant extending two (2) inches on each side of existing roof membrane seam ensuring a smooth and continuous watertight finish.
  2. Inspect all sealants at counter flashings and replace as needed.
- P. Expansion Joint and Control Joints:
1. Use curb flashing repair methods on the joint curbs only. Do not coat expansion or control joints with curb flashing materials. If existing expansion joint materials are repairable use materials and methods recommended by the original manufacturer of the joint. Replace the joint if deteriorated with a new expansion joint system, which will counter flash the UNIFLEX base flashing. **Please contact manufacturer for additional details.**
- Q. Primer:
1. Treat rust areas with appropriate Uniflex Rust Primer. Remove loose, flaking, or powdery rust by wire brushing.

### 3.4 COATING SYSTEM APPLICATION

- A. General:
1. Surface preparation is critical prior to application of the coating system. Contractor shall ensure that all surfaces and substrates which are to be coated have been properly prepared and are clean, dry, structurally sound, and free from any moisture, dirt, contaminants, or any other conditions which may interfere with the application and performance of the coating system.
- B. Protection and Start-Up Procedures:
1. Contractor shall only apply coating when the existing or forecasted weather conditions and surface temperatures will permit work to be performed as described in Section 1.8.
  2. Owner shall be notified of start times so that fresh air intakes may be closed, sealed off or adequately protected and HVAC unit's shutdown.
  3. If Contractor is spray applying the coating system, Contractor shall post notices a minimum of 48 hours around building and parking lots prior to any spraying.
  4. Contractor shall protect unrelated work and adjacent surfaces from overspray or spillage by using masking tape, plastic/paper sheets, stretch wrap, tarps or plywood, or some other material.
  5. Contractor shall remove drain screens and seal the drainpipe to prevent plugging of drain during the coating operation and shall unplug drains and reinstall screens after spray operation has been completed.
  6. Contractor shall follow all of Manufacturer's mixing instructions for the products prior to application.
- C. Application Methods:
1. Roller: For best results when using a roller, pour coating onto substrate and then spread using squeegee. Back roll using a ¾" roller. Roof brushes should be used when embedding fabric.
  2. Spray: Airless spray equipment with a recommended minimum air pressure of 5,000 psi at the tip and a tip size of .031 -.035 (e.g., 635 tip) is recommended for best results.
  3. Contractor shall frequently verify correct mil thickness using a standard wet mil gauge during application of the coating.
  4. During application of the coating, Contractor will look for and correct any pinholes, blisters or conditions which may affect the performance of the roof coating.

### D. Application of Roof Coating:

May be applied in one or multiple coats as conditions require- Preferred application spray applied.

#### 1. Application Rates:

Seven (7) year UNIFLEX Material Warranty: Apply one (1) layer of primary roof coating at one and a half (1.5) gallons per square [Twenty-four (24) wet mils; Twenty-two (22) mils DFT].

### E. Traffic areas:

Cured silicone can be slippery. Limit pedestrian traffic to designated walkways.

### 3.5 FIELD QUALITY CONTROL

#### A. Limit traffic on coated surfaces for a minimum of two (2) days.

B. Contractor shall take photographs of representative roof areas, including detail work, before work commences, after the surface has been properly prepared, after all flashing and detail work has been performed, and after application of the coating system. Photographs shall be included in final warranty request.

#### C. Final Observation and Verification:

1. Prior to demobilization from the site, a final inspection of the roof coating system shall be carried out by the Owner's Representative and Contractor.
2. Any defects and non-compliance with the Specifications, Product Data Sheets, or recommendations of Uniflex shall be itemized in a punch list. These items must be corrected by the Contractor to the satisfaction of the Owner.
3. Any areas of insufficient coating thickness will require recoating by Contractor.
4. The roof coating system must be fully adhered to the roof substrate. Any voids left under the system must be corrected.
5. All work for Uniflex warranty must be completed using Uniflex materials. Material invoices must be submitted to Uniflex to verify products installed.
6. To maintain warranty eligibility and coverage, Owner must follow all inspection and maintenance requirements described in the Uniflex Owner's Packet.

3.6 JOB SITE CLEANUP

A. Remove all roofing related trash and debris from jobsite and dispose of all such materials in accordance with all federal, state, and local requirements for the proper handling and disposal of such materials.

**Uniflex One Flash™ Yields**

THEORETICAL YIELD FOR SEAMS @ 60 MILS	
PER SAUSAGE	PER GALLON
25 lineal ft. @ 60 mils x 2" wide	160 lineal ft. @ 60 mils x 2" wide
17 lineal ft. @ 60 mils x 3" wide	108 lineal ft. @ 60 mils x 3" wide
13 lineal ft. @ 60 mils x 4" wide	83 lineal ft. @ 60 mils x 4" wide

***This Field Reference Guide (FRG) provides select preparation and application information for use by roofing crews. It is not intended to replace the full System Specification.***

Uniflex does not practice or provide any architecture or engineering services. If an Owner has a need for architectural or engineering services in relation to the project, the Owner should obtain the services of a competent and properly licensed architect or structural engineer. Neither Uniflex nor its employees offer any opinion or make any representation or warranty, and expressly disclaims any opinion, representation, or warranty, on the strength or soundness of the structure, including the roof deck. Any inspections of the roofing system by Uniflex or its employees are for suitability of the substrate for roof coating application and for warranty issuance purposes only.