



SRC Silicone Roofing System

Installation Guide Specification

For Preserving New and Aged TPO Roofs

Saving Money, Safeguarding the Environment...One Roof at a Time.®

I. GENERAL

1.01 SUMMARY

- A. Provide labor, materials, equipment and supervision necessary to install a silicone coating system as outlined in this specification to preserve and extend the service life of new and aged TPO roofing.
- B. The manufacturer's application instructions for each product used are considered part of these specifications and should be followed at all times.

1.02 SUBMITTALS

- A. Submit product data sheets and literature verifying physical properties of materials.
- B. Submit material safety data sheets.

1.03 QUALITY ASSURANCE

- A. Supplier Qualifications: The SRC Silicone Roofing System for new and aged TPO Roofs, as supplied by National Coatings Corporation, is approved for use on the project.
- B. Applicator Qualifications: The applicator shall be approved by National Coatings Corporation to apply the system. Manufacturer's written verification of applicator approval is required.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Containers and Packaging: Deliver materials in original sealed containers, clearly marked with: manufacturer's logo; full product name; and lot number(s).
- B. Storage: Store materials between 40°F and 100°F with careful handling to prevent damage to products. If conditions exceed these ranges, special consideration in storage must be taken. Do not store at high temperatures in direct sunlight.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.
- D. Protection: Protect all materials from freezing and other damage during transit, handling, storage, and installation.

1.05 PROJECT CONDITIONS

- A. These minimum recommendations for material usage are for ideal conditions. The number of gallons per 100 square feet may need to increase due to uneven application, rough surface texture, wind conditions while spraying and/or other variables.
- B. Wet insulation must be thoroughly evaluated and then addressed with removal or other measures. Consult a National Coatings Technical Consultant regarding the need for moisture surveys and other assessments.

- C. Structural cracks should be referred to the appropriate National Coatings Technical Consultant.
- D. This installation guide specification assumes that the deck, if plywood, has no dry rot, and is in sound condition, or has been repaired.
- E. Do not apply materials unless surface to receive silicone roofing system is clean, dry and prepared as specified.
- F. Install all material in strict accordance with all published safety, weather, or applicable regulations of the manufacturer and/or local, state, and/or federal agencies which have jurisdiction.
- G. The entire system shall be fully adhered to the surface on which it is applied. Voids left under the system by creating bridges are not acceptable.
- H. Do not proceed with application of coating or sealing materials when temperature is less than 35°F. No coating system shall be applied if weather will not permit it to dry prior to exposure to precipitation or freezing.
- I. Heavy puddles of coating on the roof are not acceptable.
- J. Instructions for use of all roofing materials and application equipment should be read and followed at all times.
- K. As a general principle, to prevent the ponding of water, install additional drains as necessary.

1.06 DETAIL WORK

- A. This specification does not extensively outline procedures for preparation and finishing of drains, vents, ducts, flashings, parapet walls, sheet metal work, etc. This work should be outlined by the contractor before work commences, and shall be performed observing good trade practices.

II. PRODUCTS

2.01 SRC SILICONE ROOFING SYSTEM

- A. The roofing system is the SRC Silicone Roofing System Provided by National Coatings Corporation.
- B. Physical Properties of Cured Roofing System:
 1. The roofing system shall have good resistance to ponding water.
 2. The roofing system shall contain no plasticizers.
 3. The roofing system shall contain no migrating fire retardants.
 4. The roofing system shall have a Class A fire rating on a noncombustible deck when tested according to the procedures outlined in ASTM E-108.

5. The roofing system shall also meet the following physical property requirements:

Property	ASTM Method	Results
Tensile Strength, psi (Max @ 73°F)	D-412	Minimum 247
% Elongation @ Break (73°F)	D-412	Minimum 237
Weathering/UV Resistance:	D-6694	No degradation - 5000 hrs
Permeance, perms	E-96	10.7
Volume Solids % Weight Solids %	D-2369	92+/-3 92+/-3

C. The reinforcing fabric shall be Tietex T272 or an equivalent that meets the following physical property requirements:

Properties	Test Method	Average Value
		T272
Weight (per sq. yard)	Calculated by formula	3 ounces
Bursting Strength (lbs)	ASTM D3786	177
Tensile Strength (psi)	ASTM D1682	57.1
Tear Strength (lbs)	ASTM D1117	16.1
Elongation (%)	ASTM D1682	62
Conformability		Excellent
Ease of Saturation		Excellent

2.02 RELATED MATERIALS

A. Flashing, adhesives, thinners, elastomeric caulking compounds, primers, and similar materials shall be approved by the manufacturer of the coatings. All materials used shall be applied in accordance with its manufacturer's recommendations.

2.03 EQUIPMENT

A. For recommended spray equipment guidelines, please refer to National Coatings Technical Paper "TP-117 Silicone Coatings Spray Guide", or consult the spray equipment manufacturer directly.

III. EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins and product guide specification instructions.

3.02 EXAMINATION

A. Inspect surfaces which will receive the SRC Silicone Roofing System to make sure they are clean, smooth, sound, properly prepared, and free of moisture, dirt, debris, or other contamination.

B. Verify that all roof penetrations, mechanical equipment, cants, edge metal, and other on-roof items are in place and secure.

- C. Verify that all critical areas around the immediate vicinity of the spray area are suitably protected.
- D. Verify all roof drains are clean and in working order.
- E. Verify that all air conditioning and air intake vents are suitably protected or closed.
- F. When properly applied, SRC silicones from National Coatings are not affected by ponding water. However, the National Roofing Contractors Association (NRCA) considers ponding water objectionable due to structural and health concerns. The NRCA recommends that all roof assemblies have positive drainage. NCC strongly recommends following established NRCA guidelines.

3.03 PREPARATION

- A. The surface must be clean, sound, dry and free of any materials that would inhibit proper adhesion of the coating or sealant. Achievement of this condition may require the use of INDUSTRIAL CLEANER, scraping, power brooming, vacuuming or other means, and shall always be performed observing responsible trade practices.
- B. Pressure wash the membrane free of any significant accumulation of dirt and debris prior to applying the base coat. Where unsealed membrane or seam defects are discovered, avoid introducing water beneath the membrane by using lower pressure and/or manual rinse techniques.
- C. Adhesion testing should be completed as per NCC technical bulletin.
- D. **For new TPO** (less than 3 years of service life) apply **A140 TPO primer** at a rate 1 gallon per 200 SF with brush or scrubber pad. Allow 1-4 hours to dry before applying **SRC Silicone Coating**.
- G. **For Aged TPO** (greater than 3 years of service life) The roof shall be primed with **Roof Primer A504** at a rate of $\frac{3}{4}$ gallon per 100 SF. Allow the A504 to fully cure before applying SRC roof coating. **Acrylic primer must be applied before any silicone product to ensure compatibility.**
- E. All loose seams of existing roof system shall be sealed in accordance with the single ply manufacturer's recommendations. Then seal all single ply seams with BUTYL SEAM TAPE.
- F. Seal all HVAC duct work joints as needed with **Flashing Grade Silicone Sealant** and reinforcing polyester fabric or BUTYL SEAM TAPE. Coat entire duct assembly with a 1 gallon coat of **SRC Silicone Coating**.
- G. Reseal around all mechanical equipment and roof penetrations with **Flashing Grade Silicone Sealant** architectural sealant and, where possible, **T272** reinforcing fabric
- H. At parapets, firewalls, expansion joint curbs, mechanical curbs or skylights **Flashing Grade Silicone Sealant** and **T272** in a three course detail to flash details located less than 5 inches above the deck. Flashing extending above 5 inches shall be flashed in using **Flashing Grade Silicone Sealant** only.
- I. Allow coating to dry thoroughly (normally 4 to 12 hours depending on weather conditions), before proceeding to application of the remainder of the roofing system as described in section 3.04 of this guide specification.
- J. For additional information regarding projects over newly installed TPO contact NCC Technical Services.

3.04 COATING APPLICATION

- A. After thorough preparation as necessary, the entire roof shall receive the SRC Silicone Roofing System consisting of SRC Silicone Coating in one or two passes over entire roof surface to achieve a final thickness of:

22 mils (1.5 gallons per square) minimum for a 10 year warranty

30 mils (2.0 gallons per square) minimum for a 15 year warranty

38 mils (2.5 gallons per square) minimum for a 20 year warranty

- B. While applying the silicone coating, special effort should be made to have pass lines overlap on membrane seams as to provide additional coating thickness on the seams.
- C. All coating edges shall be cut evenly in a uniform manner so as to provide an aesthetically pleasing appearance.

3.05 FIELD QUALITY REQUIREMENTS

- A. In case of manufacturer's labor and material warranty - Manufacturer's Field Services: Inspection by the coating manufacturer's representative shall be made to verify the proper installation of the system. Any areas that do not meet the minimum standards for application as specified herein shall be corrected at the contractor's expense. Manufacturer's inspection or verification shall not constitute acceptance of responsibility for any improper application of material.

3.06 CLEANING

- A. Surfaces not intended to receive the SRC Silicone Roofing System shall be protected during the application of the system. Should this protection not be effective, or not be provided, the respective surfaces shall be restored to their proper conditions by cleaning, repairing or replacing. All debris from completion of work shall be completely removed from the project site. Mineral Spirits can be used to remove coating from unintended surfaces.

IV. MATERIALS

The following materials listed in these recommendations are available from National Coatings Corporation:

1. SRC 740 or SRC 750 high solids silicone roof coating
2. A504 Roofing Primer
3. A140 TPO primer
4. Flashing Grade Silicone Sealant
5. BUTYL SEAM TAPE polyester-reinforced waterproofing tape
6. T272 polyester-reinforcing fabric 6-inch, 10-inch, 20-inch and 40-inch
7. INDUSTRIAL CLEANER water-based, biodegradable cleaner

The suggestions and data in this specification are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. The prospective user should determine the suitability of our materials and installation recommendations before adopting them for commercial use.



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