EnduraTech Premier Roofing System

PREMIER ROOFING SYSTEM

Installation Guide Specification
For Single Ply Membrane — Acrylic

EnduraStore Premier Roofing System

I. GENERAL

1.01 DESCRIPTION

A. Application and installation of liquid applied, seamless acrylic coating for the repair and restoration of aging single-ply membrane roof systems with positive drainage.

B. Included in the work are labor, materials, required equipment, and related accessories to successfully complete the installation in strict adherence to specifications as approved by NCFI Polyurethanes (NCFI).

C. Excluded is any roof accessory replacement, such as vents, drains, all penetrations, and any mechanicals. Also excluded are all structural roof repairs.

1.02 SUBMITTALS

A. A Preliminary Warranty Bid Application must be submitted to and approved by NCFI prior to any work being performed.

B. All technical data and material safety data sheets are to be submitted.

C. A cured sample of the coating is to be submitted.

D. A copy of the manufacturers and applicator's warranty is to be submitted.

1.03 QUALITY ASSURANCE

A. Manufacturer Qualifications: Upon request, NCFI will supply certification that all materials meet the physical properties as stated within this specification.

B. Contractor Qualifications: All work must be performed by a TIER ONE Certified Applicator. Work cannot be performed by a subcontractor.

C. Any deviation from this specification must have prior approval in writing from NCFI.

1.04 PRODUCT STORAGE, AND HANDLING

A. All product to be delivered in the original pails and drums. All drums or pails must be factory sealed.

B. All drums and pails are to be labeled with manufacturer's name and address, product name and description and production date or lot number.

C. All materials damaged during shipment or delivery must not be used.

D. All pails and drums are to be stored in a dry area and protected against direct sunlight and freezing temperatures.

E. The corresponding MSDS for each product is required. MSDS and Technical Data Sheet are to be read before any work begins.

1.05 PROJECT CONDITIONS

A. All mechanical units, skylights, vent pipes and any other rooftop accessories or penetrations should be in place before any work begins.

B. All mechanical units should be adjusted or turned off to prevent any fumes from entering the facility.

C. Application of all liquid applied coatings by airless spray equipment carries the risk of overspray and wind drift of material. Proper precautions, such as masking and erection of wind screens to prevent such damage are to be taken. All surfaces unrelated to work are to be covered.

D. An evaluation of existing and imminent weather and environment conditions should be considered. These include frost, dew, mist, relative humidity, and surface condensation.

E. Temperature at time of application should be above 40°. Coating should have temperature of 50° F or higher for spray application.

F. Proceed with spray application only to clean surfaces free from ponding water conditions.

G. Coatings should be protected from foot traffic and other potential abuse during the curing process.

H. All work should comply with all current OSHA regulations.

1.06 WARRANTY INFORMATION

A. NCFI warrants all its products to be free from manufacturing defects. Any products found to be defective, NCFI will replace at no charge.

B. NCFI shall warrant the specified work from the completion date for the warranty term specified against product defect.

C. Contact NCFI for additional warranty information.

II. PRODUCTS

2.01 GENERAL

A. All coating materials are to be manufactured and sourced from NCFI.

2.02 ENDURATECH N

A.	Solids	13% ± 2%
B.	Color	Black or Gray
C.	Viscosity	125-150 cps
D.	Cure Time	1-2 hours to recoat
E.	Clean Up	Toluene

2.03 BUTYL SEAM TAPE

A.	Tensile Strength	475 psi
B.	Elongation	60% ± 10%
C.	Fluid Absorption	Excellent

2.04 ENDURATECH S

A.	Solids	68%
B.	Elongation	300% ± 50
C.	Cure Time	8 to 24 hours
D.	Clean Up	Soap and Water

2.05 ENDURATECH R

A.	Solids	68% ± 2
B.	Elongation	315%
C.	Cure Time	12-24 hours to recoat
D.	Clean Up	Soap and Water

III. APPLICATION

3.01 SUBSTRATE APPLICATION

A. An appropriate single ply substrate shall be provided for the ENDURATECH Premier Roofing System.

B. The entire surface to be coated, including any parapet walls or other vertical surfaces (penthouses, etc.) must be clean, dry, of structurally sound substrate and void of ponding water conditions.

C. The entire field of the roof, and all details thereof, must be thoroughly inspected for any cracks, seam splits, areas of shrinkage, chalking, brittleness, alligatoring of existing membrane.

D. All details, including but not limited to, patches, seams, expansion joints, terminations, and transitions must be inspected to determine if repair is needed prior to coating.

E. A comprehensive moisture survey is to be conducted to determine moisture content and wet or saturated insulation.

F. An adhesion test to a representative and properly cleaned and dried area in the field of the roof is to be performed. This area is to be primed with ENDURATECH N and coated with ENDURATECH R (two coats). Contact the NCFI Polyurethanes Technical Department for additional information of the adhesion test.

3.02 CLEANING, PREPARATION, AND REPAIR OF THE MEMBRANE

A. Remove all dirt and foreign matter that may inhibit the adhesion of coating material to the roof surface. On all areas of heavy dirt and/or grease, broom scrub to loosen or remove. Pressure wash with a minimum of 2000 psi.

B. Any algae or fungi growth requires the use of bleach during this cleaning process.

C. Identify all areas containing wet insulation. Remove all wet or saturated insulation and replace with new insulation to coincide with existing roof surface levels. All new single ply installed in such areas must be mechanically fastened.

D. On all mechanically attached systems, all fasteners that have backed out are to be replaced with new fasteners.

E. Areas of membrane shrinkage (flashing and vertical transitions) are to be relieved.

F. Field seams at end laps are to be cleaned and re-sealed. The areas cleaned should extend 4" on each side of the seam. The seam is to be sealed with NCFI Butyl Tape. Tape is used on all smooth and flat areas. For all corners and transition areas (including areas prone to movement) use uncured EPDM Cover Tape. To insure maximum adhesion of tape to surface, roll with 2" roller after applying. Avoid buckling or wrinkling of tape in any area.

G. All seams must be thoroughly checked for loose areas, which are removed with knife. These areas are then cleaned and sealed with NCFI 6" Butyl Tape as described previously.

H. All areas in the field of the roof containing patches are to be checked. Any loose patches are to be replaced with new patches. The new patch is to extend beyond the perimeter on all sides of the old patch. The new patch is sealed in place with adhesive.

I. Any additional abrasions, cuts, or tears in the membrane are to be cut out, patched with new membrane prior to primer coat.

3.03 APPLICATION OF COATING

A. If adhesion test previously performed indicates a primer is required, ENDURATECH N is applied at a minimum rate of 0.75 gallons per 100 square feet. Cure time of primer is 1-2 hours, dependent on ambient temperature and relative humidity.

B. ENDURATECH S Acrylic Seam Seal shall be applied to all membrane cracks, seams, and over all areas where Seam Tape was previously applied. Application can be done by brush (50 wet mils) and may require 24 hours to cure prior to base and topcoat application.

C. Base coat: ENDURATECH R is applied at a rate of 2.0 gallons per square (20 wet mils). Airless spray is the suggested method of application; product can be rolled on smaller surfaces areas.

D. Top Coat: The ENDURATECH R base coat requires 24 hours to cure prior to topcoat application. The ENDURATECH R topcoat is applied at a rate of 2.0 gallons per 100 square feet (20 wet mils).

E. For proper application and uniform film build, coating should be applied in a multi-directional (north-south / east-west) fashion.

3.04 FINISHED MEMBRANE CHARACTERISTICS

A. Cured membrane should be one monolithic, seamless surface encapsulating the entire previously exposed membrane surface. There should be no holidays, voids, pinholes or cracks anywhere in the coated surface.

B. Total dry mil thickness should not be less than 30 mils in any given area. The average of several test areas within the field of the roof should be a minimum of 35 mils.

3.05 SITE CLEAN UP

A. Complete site-clean up is the sole responsibility of the contractor.

B. All pails, containers, equipment, protective coverings and all other items brought on site by the contractor must be removed from the site and disposed of properly and in accordance with all federal, state and local regulations.

C. All work areas must be left in an undamaged condition and acceptable to building owner or facility manager upon job completion.