

**Guide Specification****PART 1 GENERAL****1.1 SUMMARY**

- A. Provide labor, materials, equipment and supervision necessary to install a seamless, fully adhered fluid-applied roof coating system over new or existing metal roofing as outlined in this specification.
- B. The Manufacturer's Application Instructions for each product used are considered part of this specification and should be followed at all times.
- C. Related Sections:
 - 1. Cast-in-Place Concrete: Section 03 30 __.
 - 2. Metal Decking: Section 05 30 __.
 - 3. Thermal Protection: Section 07 20 __.
 - 4. Flashing & Sheet Metal: Section 07 60 __.
 - 5. Roof Accessories: Section 07 72 __.
 - 6. Joint Sealants: Section 07 92 __.

1.2 SYSTEM DESCRIPTION

- A. ELASTA-GARD™ M shall be a complete system of compatible materials to create a seamless waterproof membrane.
- B. ELASTA-GARD™ M shall be designated for application on the specific type of deck indicated on the drawings.

1.3 SUBMITTALS

- A. Product Data: Submit NEOGARD® product literature and installation instructions.
- B. Project Reference List: Submit list of projects as required by this specification.
- C. Samples: Submit cured samples of specified system. Samples shall be construed as examples of finished color and texture of the system only.
- D. Applicator Approval: Submit letter from manufacturer stating applicator is approved to install the specified system.
- E. Warranty: Submit a copy of the NEOGARD® warranty to meet project specifications.

1.4 QUALITY ASSURANCE

- A. Supplier Qualifications: ELASTA-GARD™ M, as supplied by NEOGARD®, is approved for use on this project.
- B. Applicator Qualifications: The Applicator shall be approved by NEOGARD® to install the ELASTA-GARD™ M fluid-applied roof coating system. Manufacturer's written verification of applicator approval is required.
- C. Requirements of Regulatory Agencies: Materials used in the fluid-applied roof coating system shall meet Federal, State and local VOC regulations.
- D. Adhesion Test: An adhesion test is recommended to ensure sufficient adhesion will exist between the substrate and fluid-applied roof coatings. For details of adhesion test, contact NEOGARD®.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Materials shall be delivered in original sealed containers, clearly marked with supplier's name, brand name and type of material.
- B. Storage and Handling: Recommended material storage temperature is 75°F (23.8°C). Handle products to avoid damage to container. Do not store for long periods in direct sunlight.

1.6 PROJECT CONDITIONS

- A. Do not proceed with application of fluid-applied roof coating materials when substrate temperature is less than 40°F, if precipitation is imminent or to a damp or frosty surface. Temperature should be above 40°F and more than 5°F above dew point and rising.
- B. Coordinate fluid-applied roof coating work with other trades to ensure coatings are protected from traffic and other abuse until completely cured and installation is complete.
- C. Read and follow the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- D. Maintain work area in a neat and orderly condition, removing empty containers, rags, and trash from the site daily.

1.7 WARRANTY

- A. A warranty up to 10 years in length is available for institutional, commercial, industrial, and high-rise/ multi-family residential projects only. Applicator must be eligible for, and make application to NEOGARD® upon completion of fluid-applied roof coating system. For availability of extended warranties, contact NEOGARD®.
- B. As a condition of the project's completion and acceptance, deliver to the Owner, a copy of the fully executed specified warranty from NEOGARD® following individual warranty guidelines.
- C. For Joint & Several (J&S) and Manufacturers Material and Labor (MM&L) warranties, a Pre-Installation Notification (P.I.N.) form must be completed by the applicator and signed by NEOGARD® prior to ordering of materials.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. NEOGARD® Division of JONES-BLAIR® Company, 2728 Empire Central, Dallas, TX 75235, Toll Free (800) 321-6588, Fax (214) 357-7532, www.neogard.com.

2.2 MATERIALS

- A. Fluid-Applied Roofing Materials:
 1. Biodegradable Cleaner: 8500 water soluble concentrate.
 2. Primer (previously coated or factory-finished metal roof): 33014/99951 (white) UREPRIME® HS4 primer.
 3. Primer (zinc or zinc-aluminum surfaced metal roof): 188/942 Mist Coat II primer.
 4. Sealant: 70991 or other polyurethane sealant approved by NEOGARD®.
 5. Flashing Tape: 86218 flashing tape or approved equal having a minimum thickness of 30 mils.
 6. Reinforcing Fabric: 86220 roofing fabric.
 7. Elastomeric Coating: 70611 series polyurethane coating material. Standard colors are gray, tan and white.
- B. Typical physical properties of cured fluid-applied roof coating materials used on this project are:

PERFORMANCE REQUIREMENTS OF CURED FILM		
PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Tensile Strength	ASTM D412	1,500 psi
Elongation	ASTM D412	360%
Permanent Set	ASTM D412	<10%
Tear Resistance	ASTM D1004	100 lb/in
Water Resistance	ASTM D471	<3% @ 7 days

PERFORMANCE REQUIREMENTS OF CURED FILM		
MVT @ 30 mils	ASTM E96	2.2 English
Shore A	ASTM D2240	70 - 75
Adhesion	ASTM D903	15 pli
Weathering Resistance	ASTM D822	Slight Chalk
Thermal Shock	Alternate Heat/Cold	No Loss of Adhesion

2.3 ACCESSORIES

- A. Miscellaneous materials such as expansion joints, metal flashing, adhesives, drains, etc., shall be compatible with the fluid-applied roof coating system and approved by NEOGARD®. All materials shall be applied and/ or installed in accordance with its manufacturer's recommendations.
- B. Granules (Optional): Consult NEOGARD® for recommendations.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Inspect surfaces that will receive the fluid-applied roof coating 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 to ensure they will maintain a weather-tight installation after being coated with the fluid-applied roof coating system.
- C. Inspect existing metal roof surface to receive the coatings. Metal panels which no longer have integrity due to excessive rust and deterioration should be replaced. Metal panels with seam gaps of 1/8" or more should be stitched as tight as possible with additional stitch screw fasteners.
- D. Light gauge metal panels that flex open at the horizontal lap seam when walked on, will require additional fastening and/or flashing tape in the pan of the panel to reduce deflection.
- E. Examine existing system for loose fasteners and gapped seams. Pay particular attention to the horizontal seams. Ensure the horizontal seams are tight before detailing.
- F. Verify all roof drains and gutters are clean and in working order.
- G. Verify that all air conditioning and air intake vents are suitably protected or closed.

3.2 PREPARATION

- A. This section of the specification does not extensively outline procedures for preparation and finishing of drains, vents, ducts, flashings, parapet walls, sheet metal work, etc. The applicator should outline this work before work commences, and shall be performed observing good trade practices.
- B. Tighten all loose fasteners and replace stripped fasteners with oversized version of the same fastener, i.e. aluminum, galvanized, or stainless must remain as designed by the manufacturer.
- C. Loose scale or rust must be removed from metal surfaces and primed with metal primer prior to fluid-applied coating application as job conditions dictate. Consult NEOGARD® for recommendations.
- D. Thoroughly clean metal surfaces to remove all dirt, residue and foreign material from the surface by high-pressure washing. Surfaces contaminated with oil, grease, animal fats, etc. must be removed using tri-sodium phosphate and water, or other solutions as required by job conditions. Remove all cleaning solutions with plenty of fresh water. Note: If algae is present on the surface, the cleaning must include bleach in the washing of the substrate.
- E. Detail horizontal metal seams with flashing tape.
- F. For vertical metal seams, use gun-grade sealant when there is a tight and ordinary joint that will be efficiently filled with the gun. Apply urethane sealant into vertical joints and smooth out lumps or imperfections in the application while still wet and allow to thoroughly cure.
- G. Apply urethane sealant around fasteners and strike or tool into place to achieve a smooth transition and allow to thoroughly cure.
- H. Round projections, machine legs, sign posts, guide wire straps, inside and outside corners, etc. can be flashed using sealant.
- I. Clean and seal watertight all drains, gutters, parapet walls and caps. Repair any damaged metal. Caulk and seal watertight all screws, seams, skylights, joints, pipes, voids, protrusions and any areas where water could enter through the roof.
- J. Allow roof and other prepared surfaces to dry completely before proceeding with elastomeric coating application.

3.3 APPLICATION

- A. Factors That Affect Minimum Dry Film Thickness: Thickness values of cured film can vary due to many

factors including but not limited to surface finish/texture, wind overspray loss, roller loss, container residue/spills, equipment characteristics, and thinning. In order to help ensure proper dry film thickness, use a wet mil gauge to measure thickness of coating during application. Depending on job conditions, additional coats may be required to achieve specified dry film thickness.

- B. Primer: For previously coated or factory finished-metal roofs, apply 33014/99951 (white) UREPRIME® HS4 primer at a rate of 300 - 400 square feet per gallon. For zinc or zinc-aluminum coated metal roofs, apply Mist Coat II primer at a rate of 300 - 400 square feet per gallon.
- C. Topcoat: Apply 70611 series elastomeric topcoat to yield an average thickness of 18 dry mils in strict accordance with policies recommended by NEOGARD® (see wet/dry mil chart) and allow to cure.
- D. Application Technique: Application of each coat shall be in a perpendicular direction to previous coat.
- E. Coating Thickness Requirements: Total fluid-applied roof coating thickness shall average 18 dry mils. Minimum dry film thickness at any point on the roof shall not be less than 12 dry mils.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Services: Inspection by the coating manufacturer's representative may be required 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.

3.5 CLEANING

- A. Surfaces not intended to receive the ELASTA-GARD™ M 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.

3.5 PROTECTION

- A. After completion of application, do not allow traffic on coated surfaces for a period of at least 48 hours at 75°F and 50% R.H., or until completely cured.

END OF SECTION

Wet/Dry Mil Chart

Theoretical Dry Film Thickness - Fluid-Applied Roof Coating Base and Topcoats						
Gallons/Square		0.5	0.75	1	1.5	2
Wet Mils		8	12	16	24	32
Product	Vol Solids	Dry Mils	Dry Mils	Dry Mils	Dry Mils	Dry Mils
70611 Series	75%	6	9	12	18	24
70613-CA	75%	6	9	12	18	24
70613-BIO	75%	6	9	12	18	24
For maximum performance, NEOGARD® recommends these products be applied at these rates.						
The above calculations are based on glass smooth surfaces and do not include waste factors such as wind overspray loss, surface finish texture, roller loss, container residue/spills, etc.						

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