

**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 smooth or mineral surfaced built-up and modified bitumen roofing as outlined in this specification. Note: Not intended for use over gravel-surfaced roof membranes. Contact NEOGARD® for recommendations.
- 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. Wood Decking: Section 06 15 __.
 - 4. Thermal Protection: Section 07 20 __.
 - 5. Flashing & Sheet Metal: Section 07 60 __.
 - 6. Roof Accessories: Section 07 72 __.
 - 7. Joint Sealants: Section 07 92 __.

1.2 SYSTEM DESCRIPTION

- A. ELASTA-GARD™ BUR/MB shall be a complete system of compatible materials to create a seamless waterproof membrane.
- B. ELASTA-GARD™ BUR/MB 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 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™ BUR/MB, 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™ BUR/MB fluid-applied roof coating system. Manufacturer's written verification of applicator approval is required.
- C. Requirements of Regulatory Agencies:
 - 1. The fluid-applied roof coating system shall be rated Class "A" (Spread of Flame) per ASTM E108.
 - 2. 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 containers. 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. Sealant: 70991 or other polyurethane sealant approved by NEOGARD®.
 3. Primer: Epoxy primer by NEOGARD®.
 4. Flashing Tape: 86218 flashing tape or approved equal having a minimum thickness of 30 mils.
 5. Reinforcing Fabric: 86220 roofing fabric.
 6. Elastomeric Base Coat: 7419 series polyurethane coating, dark gray in color.
 7. Elastomeric Topcoat: 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	BASE COAT	TOPCOAT
Tensile Strength	ASTM D412	350 psi	1,500 psi
Elongation	ASTM D412	500%	360%
Permanent Set	ASTM D412	<25%	<10%
Tear Resistance	ASTM D1004	100 lb/in	100 lb/in
Water Resistance	ASTM D471	<3% @ 7 days	<3% @ 7 days
MVT @ 30 mils	ASTM E96	1.6 English	2.2 English
Taber Abrasion	ASTM D4060	N/A	45 mg/1,000cs-17
Shore A	ASTM D2240	50 - 55	70 - 75
Adhesion	ASTM D903	5 pli	15 pli
Weathering Resistance	ASTM D822	N/A	Slight Chalk
Thermal Shock	Alternate Heat/Cold	No Loss of Adhesion	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 roof surfaces to insure they are clean, smooth, sound, properly prepared and free of moisture, dirt and debris.
- B. Verify structural decking is securely supported and attached.
- C. Verify all roof penetrations, mechanical equipment, cants, gravel stops and all other on-roof items are in place and secure.
- 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. Verify all critical areas in the vicinity of the application area are suitably protected.

3.2 PREPARATION

- A. Protect all adjoining areas that are not to receive the fluid-applied roof coating system and provide a suitable work station to mix the coating materials.
- B. All BUR/MB surfaces, whether old or new, shall be cleaned using 8500 biodegradable cleaner at the rate

of 1 part concentrate to 10 parts water. Apply the diluted cleaning solution under low pressure spray at a rate of 150 to 200 square feet per gallon and allow to stand for 15 minutes. **Do not allow the solution to dry.** Thoroughly rinse with fresh water under high pressure to remove the cleaning solution from the roof. The use of stiff-bristle brooms or mechanical scrubbers may be required to remove heavy deposits of dirt or other contaminants from surface. Allow roof surface to thoroughly dry.

- C. Remove all existing abandoned mechanical equipment, deteriorated roofing materials, adhesives and foreign materials down to sound substrate. Replace these areas with similar materials to match existing roof level. The width, adhesion and/or fastening requirements of the new material must be compatible with the existing roof and meet local codes. Seal all edges as described in Section 3.2 F of this guide specification.
- D. Wet areas shall be removed. Replace with similar roofing materials to match existing roof level. The width, adhesion and/or fastening requirements of the new material must be compatible with the existing roof and meet local codes. Seal all edges as described in Section 3.2 F of this guide specification.
- E. Flashings can be repaired using flashing tape or by replacement of compatible flashing material. If flashings are damaged beyond repair, flashing must be replaced with similar type roofing materials and must be compatible with existing roofing system. The membrane should be installed per the manufacturer's written specification, to bring the flashings back to a watertight condition.
- F. Repair all blisters, splits, fishmouths, seams, holes, and other surface imperfections of the roof and flashing areas with similar roofing materials. The width, adhesion and/or fastening requirements of the new material must be compatible with the existing roof and meet local codes. Over the repair, apply epoxy primer at the rate of 1/3 gallon per 100 square feet (300 sf/gal) and allow to cure until primer will not transfer when touched. When primer has cured, apply 7419 series elastomeric base coat and fabric a minimum of 4 inches beyond the edges of the repair at 24 dry mils thick. Work reinforcing fabric into wet base coat using a brush or roller to eliminate air pockets, wrinkles and gaps, applying additional base coat material as necessary to totally encapsulate the reinforcing fabric. **Note: NEOGARD® 86218 flashing tape may be used in lieu of base coat and fabric.**
- G. Thoroughly clean all exposed metal surfaces such as pipe sleeves, drains, boxes, ducts, etc. Remove all loose paint, rust and asphalt or loose roofing materials of any kind.

- H. Seal watertight 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.
- I. Clean and seal all drains watertight.
- J. Allow roof and other prepared surfaces to dry completely before proceeding with 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: If required to promote adhesion, apply epoxy primer at the rate of 1/3 gallon per 100 square feet (300 sf/gal) to all surfaces receiving the fluid-applied roof coating system and allow to cure until primer will not transfer when touched. **Do not apply epoxy primer over 7419 series elastomeric base coat used for detailing in Section 3.2 of this guide specification.** If elastomeric base coat cannot be applied over primer within 24 hours, reprime.
- C. **All modified bitumen seams on the roof must be sealed with 7419 series elastomeric base coat and a minimum of 6" wide fabric at 24 dry mils thick. Work reinforcing fabric into wet base coat using a brush or roller to eliminate air pockets, wrinkles and gaps, applying additional base coat material as necessary to totally encapsulate the reinforcing fabric. Note: NEOGARD® 86218 flashing tape may be used in lieu of base coat and fabric.**
- D. Leveling Coat: Apply 7419 series base coat to yield an average thickness of 18 dry mils to fill and level surface prior to base coat application and allow to cure.
- E. Base Coat: Apply 7419 series elastomeric base coat to yield an average of 18 dry mils in strict accordance with policies recommended by NEOGARD® (see wet/dry mil chart) and allow to cure.
- F. 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.
- G. Application Technique: Application of each coat shall be in a perpendicular direction to previous coat.

- H. Coating Thickness Requirements: Total fluid-applied roof coating thickness shall average 54 dry mils. Minimum dry film thickness at any point on the roof shall not be less than 36 dry mils, a minimum of which 12 dry mils must be topcoat.

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™ BUR/MB 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
7419	84%	6.7	10.1	13.4	20.2	26.9
7419-CA	87%	7.0	10.4	13.9	20.9	27.8
7419HB	76%	6.1	9.1	12.2	18.2	24.3
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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