

## Fully Adhered Roofing Specification

### PART 1 GENERAL

#### 1.1 Description

Furnish and install a fully adhered roofing system in strict accordance with the specification and detail drawings as approved by Burkeline Roofing Systems.

A. Scope: The scope of work includes but is not limited to the attachment of the roof deck a layer of insulation by means of screws and plates or other Burkeline approved insulation fastening system. A Burkeline Hypalon® roofing membrane shall then be adhered to the insulation with contact adhesive manufactured by Burkeline Roofing Systems.

B. Related Work Specified Elsewhere: In addition, the structural roof deck shall be rendered into a condition in accordance with Burkeline specifications in order to receive the roof covering system. All metal work, drains, curbs, and penetrations shall be cleaned of existing systems if necessary and all surfaces brought to Burke standards. A moisture survey of pre-existing roofing materials and vapor barriers shall be taken; insulation thickness and type shall be noted along with recommended fastening patterns in order to determine compatibility with the Burkeline System. In effect, the roof shall be cleared of all debris, and all existing materials remaining must be approved by Burke.

#### 1.2 Quality Assurance

A. Installation contractors shall be trained and approved by Burke as qualified to install Burkeline fully-adhered roofing systems.

B. All materials including, but not limited to, all insulation fasteners, adhesives, and flashing must be supplied or approved by Burke. Insulation must be provided by or approved by Burke.

C. A Job Approval Form and Request for Warranty form shall be filled out completely prior to installation.

D. A Burkeline factory representative shall inspect the completed installation for job certification and insurance of Burke Warranty.

#### 1.3. Product Delivery, Storage & Handling

A. All materials provided by Burkeline shall be delivered with appropriate identification indicating storage conditions, lot numbers, usage instructions and handling precautions.

B. Material Safety Data Sheets are available for materials, including solvents and adhesives.

C. All materials should be stored in their unopened packaging or containers in a clean, dry, protected area until ready for use.

#### 1.4 Job Conditions

A. Scheduling - Installation of the roofing systems on new construction should begin after all possible work involving foot traffic on the roof deck has been completed. On re-roofing projects, the roof deck shall be clean and dry with needed repairs completed prior to the installation of the new single ply system.

B. Sequencing - Installation of roll goods generally begins at the lowest point of the roof, working up-slope. This facilitates shingling to drain.

1. Work shall be scheduled so that only that insulation or membrane shall be deployed as can be completed in a given day.

2. All flashings and details shall be completed on a daily basis. At the end of each day there shall be only "completed roof".

D. Weather conditions - The roof deck surface should be clean and dry; sealing should not be attempted on wet surfaces. Recommended ambient temperature for the use of Burke M-700 adhesive is 60°F. If low ambient temperatures are forecast, the surface temperature of the roofing membrane should be brought up to 60°F. or higher, prior to seaming. This may be accomplished with hot air heaters, tents, etc.

E. Power Requirements - Heat seaming tools and hand-held heat guns require an adequate source of 110 and/or 220 volt power.

F. Ventilation - Where cleaning solvents and solvent based adhesives or welding solutions are used, good ventilation and air circulation must be available. Consult can or carton labels or Burke for chemical safety data on product used. Eye protection is advisable. Gloves are recommended.

### **1.5 Warranty**

A five or ten year limited system warranty is available from Burke on new or re-roof installation, providing the project is pre-approved and accepted, inspected by a Burke factory technician and all other Burkeline specifications are met.

## **PART 2 PRODUCTS**

### **2.1 Materials**

All materials shall be furnished, specified and/or approved by Burke for use with the Burkeline Roofing System..

A. Roofing Membrane - The white (top side)/ black (back side) Hypalon® membrane shall be 0.045 in. thick (M-358). Nominal sheet width is 61 in. The membrane is available as roll goods 100 feet in length. Burkeline field sheet shall also be used on all parapet walls and curbs.

B. Flashing - A white 0.055 in. unsupported Hypalon® sheet (M-377) shall be used around vent stacks, pipes, and corner or any are requiring the flexibility of an unsupported sheet. Preformed inside and outside corners of white unsupported Hypalon® (M-350, M-366) are available in addition to preformed pipe penetration fittings ( M-390, M-391, M-392).

C. Pre-wash solvent/cleaner - A pre-activator solvent and cleaner must be used to prepare Hypalon® for seaming heat-welding (M-100).

D. Welding Solution - This white high-solids solution of Hypalon® compound immersed in solvent (M-734) is recommended for Hypalon® to Hypalon® seams. In addition Hypalon® welding solution shall be used to flood coat all cut edges where polyester scrim is exposed. Welding solution shall also be used liberally when welding unsupported Hypalon® at flashings, corners or pipes (etc.) in order augment heat seaming. Heat seaming equipment (Leister Variant or approved equal) must be used for all Hypalon® to Hypalon® seaming.

E. Bonding Adhesive - A solvent-based contact-type bonding adhesive M-700 shall be used to bond Hypalon® to all insulation and substrates; i.e. wood, metal, concrete, etc.

F. Other Component Materials - All materials used with the Burkeline Roofing System, not supplied by Burke, shall be approved for use with the Burkeline system by Burke, and shall be installed according to the manufacturers' recommendations—other components include, but are not limited to the following:

1. Insulation - shall be provided by Burke or Burke approved isocyanurate or equal. The insulation must be compatible with a Burke fully adhered installation. All insulation must also conform to specific local building code, insurance, fire or wind requirements.
2. Over night Seal - for interim sealing must be approved at Burke.
3. Wood Nailers and Cant Strips - treated (Wolmanized pressure treated two by four or better or equal must be used).
4. Foam Buffer/ Separator - for expansion joint and reglet use.
5. Metal, fascia, continuous clip, gravel-stop, reglet strip and fasteners, use corrosion-resistant metal (i.e. galvanized, stainless, aluminum, etc.) All flashing metal and fasteners for attachment must meet Burke specifications and/or code specifications for the building.

## **PART 3 EXECUTION**

### **3.1 Inspection**

The roofing installer shall inspect the roof deck prior to installation of the Burkeline System. Any existing conditions that prohibit the installation of the roof system and proper functioning of the system according to the project specifications shall be repaired, and Burke shall be notified.

### **3.2 Preparation**

The General Contractor shall be responsible for the suitably prepared roof deck surface to accept the Burkeline roofing

membrane. Specifically, the roof deck surface shall be swept clean and be free of sharp edges, cracks, loose and foreign debris, or oil and grease. When re-roofing over an existing roof, the surface shall be dry, smooth and free of blisters.

### 3.3 Installation

The installation contractor shall install the roofing system in accordance with the specifications, Burke Detail Drawings, and recommendations of the manufacturers.

A. Installation prior to membrane placement Burke approved rigid insulation board shall be installed in accordance with the requirements of the specifications of applicable codes. Properly treated nailers shall be installed around the perimeter, and elsewhere as specified. Expansion joints and treatment of all penetrations shall be completed prior to placement of the roofing membrane.

B. The rolls of Burke Roofing Membrane shall be positioned according to the specifications and layout drawings. Starting at the low point of the roof, position the first roll square with the roof edge and unroll a workable length between 50 ft. to 100 ft. allowing sufficient material to complete fastening and flashing of the roof edge according to job specifications. Carefully fold sheet in half exposing the bottom black surface while remaining membrane side on line. Re-measure the section to check for movement and assure the sheet is still square. Apply Burke's M-700 to insulation using roller or brush while at the same time another member of the crew applies the M-700 contact adhesive to membrane which has been folded back to receive adhesive. When adhesive becomes tacky (no longer sticks to fingers), on both surfaces, roll sheet into place working the air from the center of the sheet out toward the edges. Do not allow air to remain in trapped bubbles beneath the membrane. Then, using a metal or rubber roller, roll the entire area. Repeat this procedure on the other half of the sheet. Install the second and succeeding rolls in a like manner overlapping edge 3" over preceding roll.

*NOTE: Cure should be taken to keep contact adhesive off area that is to be seamed together. If adhesive does come in contact with this area, wash with xylene being careful not to damage sheet*

C. Membrane Seaming - Each seam shall be liberally brushed with a prewash solvent/cleaner (M-100) as required. A hand spray bottle may be used for this purpose. Both the bottom of the top overlapping sheet and the top of the bottom under-lying sheet must be pre-activated. The heat seamer may then be used. Caution must be taken to ensure that the heat welding machine or hand welding mechanics are proceeding at a rate and at a temperature suitable for existing membrane and weather conditions. Burkeline White Welding may be used on field sheets to augment heat seaming, or on any surface where Hypalon® to Hypalon® seams are required. The White Welding Solution shall be brushed liberally onto both surfaces when welding all unsupported flashings including all unsupported cap-strip over butt splices, as well as when welding unsupported flashing, corners, etc. to the roofing membrane.

D. Other Fastening and Installation - All Burke Detail Drawings and Terminations are demonstrated in the Burke architectural binder. Any details not addressed in the Burkeline binder shall be approved on a job by job basis at the time of the pre-job conference or at the time when the Burke pre-approval request for warranty is submitted. This includes insulation fastening patterns Burke pre-approval request for warranty is submitted. This includes insulation fastening patterns.

### 3.4 Field Quality Control

The installing contractor shall provide inspection and testing of the field seams to assure that Burke quality requirements are maintained throughout the installation. Each field seam shall be 100% inspected to insure integrity, and all defects shall be repaired or cap-stripped. A Burke representative shall perform a final inspection of the finished installation, and a written report shall be prepared (The Burke Punch list). System deficiencies noted during the inspection shall be corrected by the installer prior to final acceptance by the building owner. Submission of a signed copy of the Burkeline Punch-list and warranty fee to Burke will inform Burke of a project's warranty readiness. The appropriate warranty for the roofing system will then be issued by Burke to the roofing contractor to be passed on to the building owner.

### 3.5 Clean Up

The installation contractor shall be responsible for the cleanup of the completed roofing installation. All extra materials shall be resealed in their containers, if necessary, and removed. All trash, scraps, and tools shall be removed. Protection for the finished roof membrane surface should be provided, if further work or traffic is anticipated on the completed installation.

*All statements, technical information, and recommendations made in this document are, to the knowledge of Burkeline Roofing Systems, true and accurate and are based on our own research and the research of others. This document should not be construed as amplifying, modifying or superseding Burke's warranties on any existing products or services supplied by Burke, and Burke assumes no liability in connection with any use of this information.*

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