



## Application Guidelines Modified Bitumen Roof

### **1.0 GENERAL**

This specification is provided as a general guide for use of Liquid Rubber products based on typical building conditions and standard roofing practices. Liquid Rubber recommends that the Owner's representative independently verify the accuracy and appropriateness of a specification provided for a specific project. Additionally, the roof and any underlying insulation should be analyzed for water saturation.

### **2.0 INSPECTION**

Improperly prepared surfaces can result in the reduction of the service life and performance of the membrane coating. A thorough inspection of the roof prior to beginning work should be performed to ensure adhesion and the integrity of the coating. At a minimum, the following must be confirmed:

**2.1** A satisfactory surface for application and the soundness of the existing roof membrane to the roof deck.

**2.2** The drainage of the roof's surface must be functioning properly.

**2.3** A moisture meter, IR scanner or core samples must be used to determine the presence of wet insulation leading to corrosion of metal decks or rot in wooden decks as a result of existing leaks.

**2.4** If an existing coating is present, determine the soundness and the compatibility of the coating to Liquid Rubber SealRoof products by coating a small test area.

**2.5** Identify and clearly mark any delaminated layers of the plies, any large blisters, or cracked or brittle areas.

### **3.0 GENERAL PREPARATION AND CLEANING**

Liquid Rubber SealRoof products must be installed on a clean, dry and structurally sound surface that is free of sharp edges, dirt, debris, oil, grease, coal tar, mastics, flaking paint, silicone, other coatings or other contaminants.

**3.1** If the existing roof is granulated, use a power broom, vacuum or other suitable means to remove granules to the fullest extent possible.

**3.2** If the surface needs to be washed, allow the deck to dry until it is free of surface and retained moisture.

**3.3** Clean and remove any loose rust or scale from metal surfaces.

**3.4** Prepare pipes by sanding Metal / PVC / ABS pipes to a min. 4"/10 cm at juncture of pipe penetration. Clean PVC / ABS with acetone, rinse with clean water and dry.

**3.5** Install protective covers over drain grates.

**3.6** Mask areas as needed for protection against over spray.

**3.7** Allow detail work to cure for 12 hours prior to applying Liquid Rubber SealRoof spray products overtop.

### **4.0 REPAIRING BLISTERS**

**4.1** Cut blisters in the existing membrane which are raised over 1"/2.54cm and greater than 1' / 30cm in diameter in the existing plies in a cross type cut.

### **Using the 3 Course Method**

The **3-course method** for sealing cracks and penetrations uses Liquid Rubber HighBuild S-100/200 and various widths of Liquid Rubber reinforcing geo-textile fabrics. Use heavy coats for all steps.

**A.** Measure and cut a length of Liquid Rubber geo-textile fabric and ensure the fabric overlaps 6"/15 cm on all sides of the area in question. Apply a coating to one side using HighBuild S-100/200.

**B.** Apply a coat of HighBuild S-100/200 over the surface extending 6"/15cm on both sides and imbed the coated side of the geo-textile into the coated surface.

**C.** Allow it to tack up and apply a coat of HighBuild S-100/200 over the geo-textile. Allow it to dry for approx. 3-4 hours and apply a 2nd coating.

**D.** Close fish mouths (openings) by pushing them down and back brushing HighBuild S-100/200 into the openings.

**4.2** Fold the segments back and dry any moisture from the exposed area. Replace wet insulation level to the existing roof.

**4.3** Apply a coating of Liquid Rubber HighBuild S-100/200 to the exposed area and to the underside of the plies. Allow the coating to turn black and reseal flat.

### **5.0 SEALING THE ROOF EDGE/PERIMETER-GENERAL**

The preparation and application specification pertains to various types of the roof's edge perimeter including cap flashing, coping, parapet walls and gravel stops. For walls with metal cap flashing or coping covers, the recommended procedure is to remove the cover, repair any damage to the coping or parapet wall, apply 3-course method and replace the cap flashing.

**5.1** Fill non-structural voids and cracks in the coping and wall with HighBuild S-100/200 and/or TrowelGrade B-400 then employ 3-course method for cracks over 0.25"/0.6mm.

**5.2** Where base flashing has not been installed or where there are 90° turn-ups at the intersection of the roof to wall, apply a 0.75" x 0.75" / 2cm x 2cm fillet using HighBuild S-200 and/or TrowelGrade B-400.

**5.3** Starting from the horizontal top of the wall or coping apply 3-course method using Liquid Rubber 12"/30cm wide geo-textile reinforcing fabric terminating down and across 6"/ 15cm onto the flat of the roof surface.

**5.4** When the roof's edge has only a gravel stop apply 3-course method using Liquid Rubber geo-textile fabric terminating to the outer edge of the gravel stop.

## **6.0 SEALING PIPE PENETRATIONS, SCUPPERS, VENTS, PITCH PANS, CURBS AND SKYLIGHTS**

6.1 Clean and remove any loose rust scale, excess caulking or mastic.

6.2 **PIPE PENETRATIONS:** General recommendation is to replace old pipe flashings with retrofit wrap around pipe flashing boots or install pitch pans with precast components and pourable sealants. Seal with HighBuild S-100/200 over the boot and down across the roof surface several inches.

Alternative method to seal pipe penetrations is to measure and cut a length of Liquid Rubber geo-textile fabric 3"/ 7.5 cm longer than the circumference of the pipe. Cut 3"/7.5cm long slits every 1"/2.54 cm apart along one edge. Apply a coat of HighBuild S-100/200 extending 4"/10 cm on the pipe from the juncture of the pipe penetration and down across the flange and terminating 4"/10 cm across the flat of the roof. Use 3-course method and wrap the fabric around the pipe with the slits splayed out across the roof surface.

6.3 **DRAINS:** Inspect drain seals, replace if damaged. Apply a coat of HighBuild S-100/200 over the gravel guard and out 6"/15 cm across the roof surface.

6.4 **SCUPPERS:** Inspect and replace the scuppers if they are in poor condition. Use 3-course method over the scupper flange if exposed and not sealed to the roof surface using geo-textile. Apply a coat of HighBuild S-100/200 to the inside of the conductor head and around where the downspout meets.

6.5 **SKYLIGHTS, VENTS AND ROOF CURBS:** Seal around units using 3-course method using geo-textile.

## **7.0 APPLICATION OF BASE COAT AND TOP COAT - GENERAL**

The total recommended DFT (dry film thickness) for Liquid Rubber SealRoof products is 80-mil/2.0 mm DFT.

**Base coat:** Final DFT for SealRoof B-200 will be 60-mil/1.5 mm.

**Top Coat:** Apply SealRoof A-200 @ 20 mil/ 0.5 mm. DFT.

**Note:** If the topcoat of SealRoof A-200 is not applied, increase SealRoof B-200® DFT to 80 mil/2.0 mm.

7.1 Begin by spraying Part A only, **meaning the SealRoof B-200 without the calcium chloride**, over the entire concrete sub grade at the rate of 10 wet mils to prime the surface. This will also fill any voids that were missed during the prep work. Allow drying to the touch before building the membrane.

7.2 Follow by applying Liquid Rubber SealRoof B-200 part A & B (instant set) @ 80-100 wet mils to all vertical/horizontal intersections such as wall/roof turn-ups, fillets. Apply in a crosshatch pattern with 2-3 passes in each direction with a 50% overlap. This will result in a 50-70 mil DFT or 1.5 mm.

7.3 Details where the 3-course method was applied should receive 20 wet mils. This should extend 4"/10 cm up the vertical surface and across the horizontal surface and at the corners.

7.4 **Top Coat:** Before applying the topcoat, wash the instant set salt residue off and allow to completely dry. Apply Liquid Rubber SealRoof A-200 @ 30 wet mils to yield 20 mil/ 0.5 mm DFT. Apply 2 coats SealRoof A-200, allowing approximately 3 hours curing time between coats.

7.5 Test the Liquid Rubber SealRoof System to ensure that it is sufficiently cured by using a moisture gauge. The moisture content must be lower than 10%. If traffic is anticipated, apply Liquid Rubber T-300 over installed membrane for protection.

## **8.0 Product Curing Precautions**

8.1 Curing time depends on weather conditions. A minimum of 24-36 hours curing time is normally required at 70F/20C and 50% humidity for a 80 mil/2 mm DFT membrane to fully cure. Curing times can be enhanced with air movement (fans) and heaters. If rain is expected within 24 hours, delay installation.

8.2 Conditions such as cold temperature, high humidity or airflow may delay full adhesion and curing of the membrane subject to the membrane thickness and severity of conditions.

## **9.0 Post Installation Inspection**

9.1 Upon completion, inspect the entire roof surface for uniformity of membrane thickness in grid patterns of 150 FT<sup>2</sup>/45 M<sup>2</sup>.

For more information, please consult a Liquid Rubber technical representative @ 855-592-1049, 8:30 AM – 5:00 PM EST.

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