

# CONCRETE ROOF APPLICATION GUIDE



**Liquid Rubber** has several easy, **Do-It-Yourself** solutions to seal and waterproof your concrete roof. Water-based and non-toxic with no VOC's or solvents. Can be applied by brush, roller, or heavy-duty airless paint sprayer to create a seamless waterproof membrane with excellent flexibility and UV resistance.

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#### **PREPARATION**

This specification is provided as a general guide for use of Liquid Rubber roofing products based on typical building conditions and standard practices. Liquid Rubber recommends that the Owner's representative independently verify the accuracy and appropriateness of a specification provided for a specific project.

#### **Inspection:**

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

- Must be installed on a sound substrate.
- Surface must be free of voids low/ponding areas and irregularities.
- Reinforce cracks, joints, around protrusions, corners, etc. using Geo-Textile applied via the 3course-method.
- Drainage must be functioning properly.
- To determine the presence of water saturation, core samples can be taken and a humidity test be performed or an alternative test is to cut several pieces of 6 mil poly plastic, 18" x 18" square and using duct tape, tape the edges of the plastic firmly to the concrete in several areas. After 24 hours remove the plastic and observe for moisture on the underside of the plastic and/or any dark appearance in the concrete. If either is observed, allow the concrete to further dry and repeat the moisture test again.

Note: Observe when the ambient temperature is cool, not hot. This is not always an accurate test and is only an indicator.

• If an existing coating is present, determine the compatibility of the coating to Liquid Rubber products by coating a small test area, allowing it to cure and attempting to peel from the surface. (Do not apply to silicone or coal tar).

### General Preparation & Cleaning: (Prep is 90% of the job!)

Liquid Rubber products must be installed on a clean, dry, and structurally sound surface that is free of sharp edges, efflorescence, dirt, debris, oil, grease, coal tar, mastics, flaking paint, silicone, other coatings, or other contaminants. High-pressure power washing with a minimum pressure of 1,400 psi is recommended to provide a clean bonding surface. Profiling methods include shotblasting, sandblasting, grinding, or etching. Profile should match 150 grit sandpaper.

- Profile the surface using Liquid Rubber Concrete Etch or other suitable method.
- Clean the substrate by pressure washing.
- After washing, allow the deck to dry completely until it is free of surface and retained moisture. (typically 24-48 hours)
- Fill cracks and control joints (over 1/8") with Liquid Rubber Sealant & Adhesive.
- Concrete surfaces should be primed with Liquid Rubber Multi-purpose Primer.
- Scuff metal and plastic pipe, clean with appropriate cleaner and prime with **Liquid Rubber Multi-Purpose Primer**. (PVC, ABS, CPVC and other plastic pipe will also need to be wiped down with a rag that has been dampened with acetone to help remove plasticizers prior to application of primer).
- Install protective covers over drain grates.
- Mask areas as needed for protection against overspray. (be sure to pull tape or blocking while coating is still wet).
- Allow detail work to dry prior to full field applications.



#### **DETAIL WORK**

#### **Detail Coats:**

Detail areas may include control joints, cracks, around protrusions, corners, etc. Use the **Liquid Rubber Geo-Textile** via the 3-course-method for sealing cracks, joints, and penetrations.

- Measure and pre-cut **Liquid Rubber Geo-Textile fabric** to the required length.
- Apply a generous 6" wide band of the Liquid Rubber Sealant centered over the crack, joint, etc. and lay the 4" geo-textile into the coating while wet, leaving no wrinkles. Apply an additional coat of the Liquid Rubber Sealant over the Geo-Textile and allow it to dry.
- Once the details are dry (tacky is ok) you can begin applying your full field coats to the entire surface.

(Remember, these are the area's most likely to leak so pay special attention to the details, nobody wants to do it twice!)





#### **APPLICATION**

#### **Termination:**

Tape-off, block off or otherwise mark areas that are not to receive coating. **Recommended working method:** Work in manageable sections. i.e. 10' x 10'

#### Application:

Once your preparation is complete, clean, and dry you can begin your full field application. Begin in the farthest corner and work toward your exit. Work in manageable sections (i.e. 10ft x 10ft) and inspect as you go. Lap onto adjoining sections while applying to the new section (maintaining a wet edge). Talk to your Liquid Rubber Technical Rep to determine which product is best suited to your application.

#### **Inspection**:

Inspect for pinholes, blisters, voids, thin spots, or other defects. Repair as necessary.

#### **Cure Time:**

Refer to the specific product page or data sheet. Cold or damp conditions can extend drying times.





#### APPLICATION TIPS

- Apply using a 3/8 (10mm) roller, brush or appropriate paint sprayer.
- Do not apply in humidity above 80%
- Use Liquid Rubber Sealant & Adhesive for gaps and cracks.
- Do not combine Black products with Colored products.
- Some coatings will remain soft and tacky after full cure and are not meant for constant walking surfaces.
- Wrap brushes in plastic to use for the next coat.
- Pull your masking tape or blocking while the coating is still wet. You may re-tape or stay shy of the termination line on your following applications. If you allow your coating to dry too much, you can score/cut along the tape line before pulling to prevent the chance of lifting the coating.
- Apply to clean, dry surface that is free of dirt, silicone, loose paint, rust, oil, grease, coal tar, or other contaminants.
- Apply each new coat in an alternate direction to the previous coat to ensure even thickness.
- Typically cures within 48-72 hours.
- Avoid contact with solvents and solvent based cleaners, adhesives, and paints.
- Do not allow to freeze until fully cured.
- Do not apply in wet conditions (including fog and dew) or if rain is forecasted within 24 hours.
- Apply next coat when dry to the touch (Refer to specific product requirements, tacky is OK).
- Make sure what you're coating is at least 5 degrees above the dew point of the environment you are coating in. (See technical specs for more details)
- Do not apply in direct intense sunlight
- It is always a good idea to apply a small test patch in an inconspicuous area to ensure adequate adhesion prior to full application.
- See website for videos and technical support.

#### **COVERAGE RATES:**

#### **WATERPROOF SEALANT:**

**Benefits:** Most puncture resistant – Choose when greater elongation is needed.

#### Flat/Ponding Surface:

Apply a minimum final thickness of 1 gallon per 15 sq ft (1.4 sq/m). It should require around 4-5 heavy coats to achieve a 60-80 mil (1.5-2.0mm) (DFT) membrane.

#### **Vertical Surfaces:**

Apply a minimum final thickness of 1 gallon per 30 sq ft (2.8 sq/m). It should require around 3-4 heavy coats to achieve a 30 mil (0.76mm) (DFT) membrane.

**Recoat time:** 6-8 hours. **Cure:** 24-48 hours.

#### **COLOR SEALANT:**

**Benefits:** Comes in various Colors/Solar reflective (varying degrees) - Choose when greater elongation is needed, and a color is desired.

**Flat/Ponding Surface:** Apply a minimum final thickness of 1 gallon per 15 sq ft (1.4 sq/m). It should require around 4-5 heavy coats to achieve a 60-80 mil (1.5-2.0mm) (DFT) membrane.

**Vertical Surfaces:** Apply a minimum final thickness of 1 gallon per 30 sq ft (2.3 sq/m). It should require around 2-3 heavy coats to achieve a 30 mil (0.76mm) (DFT) membrane.

Recoat time: 6-8 hours. Cure: 24-48 hours.

#### **SILICONE ROOF COATING:**

**Benefits:** 1 application/Solar reflective – Choose when you only want to do 1 coat.

Apply a minimum final thickness of 1 gallon per 50-60 sq ft (4.65-5.57 sq/m). It should require 1-2 coats.

Recoat time: 6-8 hours. Cure: 24-48 hours.



## **CLEAN UP** - It turns out that cleaning up your mess is not nearly as fun as making one, so follow these rules.

- Always organize yourself and your work area to reduce the potential for spillage and other accidents.
- Set out a tarp or large piece of cardboard to keep containers and tools on, when not in use. Make sure you have mineral oil/baby oil, rags, and odorless mineral spirits on hand, so you are ready if a spillage occurs.
- Soak up as much material as possible with rags.
- Colored Products: Clean with soap and water.
- **Bitumen:** Clean skin immediately with mineral oil/baby oil and other surfaces with odorless mineral spirits. (test first to ensure no discoloration)
- Silicone: Uncured silicone coating can be cleaned, and equipment can be flushed with VM&P Naptha or mineral spirits.
- If dried, scrape off as much as you can.
  (with a razor/scraper/etc.)
- Use odorless mineral spirits to weaken the material and an appropriate tool to mechanically remove (wire brush, grinder, etc.)
- Warning: Mineral spirits can spread the stain, be sure to use sparingly, in a controlled manner, and to follow the manufacturers safety recommendations.
- Refer to the Product Safety Data Sheet for personal protective equipment recommendations.





#### PHYSICAL PROPERTIES

Color (Liquid) % solids (wt.) (Liquid) Adhesion to Primed Surfaces Low Temp Flex Varies by Product Varies by Product Cohesive Failure -7°C

#### **PACKAGING**

- 1000 L (264 Gal) IBC Tote
- · 205 L (55 Gal.) Plastic Drum
- 18.9 L (5 Gal.) Pails
- 15.1 L (4 Gal.) Pails
- 3.78 L (1 Gal.) Cans

