The ONLY Liquid EPDM Rubber in the World!

EPDM coatings

25-Year History of SUCCESS

EPDM Coatings NE Sales Office
494 Bridgeport Ave., Suite 101, PMB# 342 • Shelton, CT 06484-4748
TEL: 855-281-0940 • FAX: 702-977-2936
www.epdmcoatings.com • info@epdmcoatings.com
Authorized Stocking Distributor of Proguard Coatings

TESTIMONIALS

"Our roof is now complete. As you know, this was a two-year project. We have a 25,000-sq.-ft. roof with numerous other coatings on it. 25% buildup with at least 4 coats of elastomeric and 25% metal with a Dicor product that we kept reapplying and the other 50% original metal. We tackled the frst two parts using your profex primer and then the liquid EPDM rubber. After two years, it passed with fying colors. We did the job ourselves, so I am sure it took longer than it needed, but we were extremely relieved and a little surprised that the roof did not leak the frst winter after application. Normally, that is when we encounter our leaks due to the expansion and contraction of the metal against the coatings. Your sales manager will remember me for sure because I was highly skeptical with yet another product claiming to end all roof leaks and also that yours was not so reasonable. To any customers reading this, here is a valuable money lesson I learned: if you need brain surgery, fnd the best doctor. You do not want to repeat that operation. This is true for my roof. For years, we kept spending money on top of money for cheap coatings not to mention my staf time up on the roof. This liquid epdm is not cheap, but after my lesson do you really want a CHEAP roof product? I basically spent $1.28 per square foot with this product and over the past 5 years over $5.75 with the other products. Hope this helps those out there with the same situation we were in. Sorry, guys. I did promise pictures, but we cannot seem to fnd them."

--R. Patel
Owner, R and K Distributors

"EPDM coatings had asked us to put together a summary of a project we completed three years ago in Connecticut. The project consisted of recoating an existing 15,000-sq.-ft. EPDM roof. Approx. age 14 years. The existing roof began chalking and retaining water in many areas. Also, signifcant separation within the seamed areas had developed. Our crew frst power- washed and vacuumed the entire roof. Next day we came back and sealed off all separated seams with the two-sided butyl tape and did all our prep work around the seams, chimney, etc. Total project took 74 of the 5-gallon pails. Cost of materials was approx. $1.32 per square foot. Two other systems we explored was an acrylic elastomeric requiring two coats of material cost .55 per square foot so essentially $1.10 for the two coats and a butyl coating that requires a primer. Both products there were at $1.43 a square foot. This does not include labor-just material costs. Labor costs would have been about 2.2 times higher with the other products. We had spent two months over the summer going back and forth with the owner and researching what we were going to use for this roof, and we had specifc marching orders from the owner. They wanted a one-coat system, did not want to have issues with ponding water, and did not want to have to come back in a few years to repair it. After this frst job, we do not use any other product, hands down. There are many reasons, but in the interest of time here you go. First, it is the only roofng product in the U.S. that is warrantied on a fat roof against ponding water and that was the deciding factor. It is not some cheap water based acrylic or elastomer. I think we all know how those work essentially recoating them every 2-4 years. The liquid epdm cures by catalyst, and as it cures the liquid epdm will chemically bond itself to the roof you are applying it on. We have not seen any product with that type of chemistry and bonding properties without giving up any tensile strength. This is why it can claim its 18-20 year life expectancy. It really is the only roofng material we have seen that immediately waterproofs. On our third day late in the evening, we had a shower come through, and we needed to stop for the day. We called the company with our concerns since we thought the material that was not dry was a total loss. We came back the next afternoon, and the water evaporated, and the product continued to cure. In addition, a portion of that area is where the owner had a nasty leak, which by the way stopped even though the product did not have sufcient time to dry. If your client is looking for a solid-performing product that you'll never have to worry about getting a call from them saying the roof is leaking, then this is it. If your client is just looking for the cheapest thing to coat your roof, this is not the product, and my suggestion is to run from that potential customer. You cannot use cheap materials and expect them to hold up for any length of time; it is just not worth the reputation all of us work so hard to develop over the years."

- Mario
Top-level Roofing

Liquid Rubber® is the ONLY liquid form of EPDM in the WORLD!

It can conform to any shape of surface-flashing protrusion-vertical or horizontal-and can be applied easily with a paint-brush or roller. When mixed with a catalyst, it cures by chemical reaction to form a self-adhering, solid, seamless rubber sheet.

Liquid Rubber® is a versatile coating for a broad range of applications. Its superior protective quality is derived from a unique combination of physical and chemical properties. The EPDM chemistry provides long durability, water resistance, a broad temperature tolerance, and chemical resistance. As a chemically curing Liquid Rubber®, it can form a flexible membrane up to 35 mils thick in 1 coat.

The exposure environment can vary from high humidity to total immersion. It can withstand constant or cyclic temperature changes from minus -40° F to 300 °F. It resists corrosive environments, including vapors, liquids, and salt solutions.

Liquid Rubber® is an extremely effective corrosion-preventing coating for steel and aluminum. It does not contain any leachable or sacrificial components, so protection does not diminish overtime.

The time needed for the Liquid Rubber® to solidify after it has been catalyzed varies depending on the temperature. At least 2 days of cure time should be allotted for most applications. Stationary structures are the most suitable for Liquid Rubber®.

KEY BENEFITS

- Liquid Roof is nearly identical chemically to sheet EPDM but with the distinct advantage of being a liquid. It is self-adhering and seamless
- Takes temperatures from -40° to 300° F
- One-coat application
- Easy application-a true DIY product
- Waterproofs immediately upon application and will take ponding water 365 days a year
- Seals leaks and reduces heat buildup and rain noise. Drastically extends the life of surfaces
- Liquid EPDM has proven itself superior to acrylics, urethanes, and other elastomers for up to 4 times longer
- Goes on virtually all surfaces
- Conforms to any shape of roof-fashing or pro - trusion both vertical and horizontal. Cures by chemical reaction to form a self-adhering, seamless membrane
- Liquid EPDM forms a 100% seamless membrane
- The unique properties of EPDM rubber make it a versatile maintenance and repair product
- Outstanding color and heat reflectivity
- Reduces dirt pickup
- Reduces mold and mildew

EPDM coatings

The following roof types-substrates do NOT require the Proflex Primer-only one coat of the Liquid EPDM

- Various Metal Roofing systems
  - Weathered Galvanized
  - Weathered Aluminum
  - Weathered Copper
- Any original EPDM rubber roofng system
- Fiberglass
- Acrylic Sheet and any acrylic-based products
- Weathered Vinyl
- Polyurethane Foam-Requires the Moisture Cure Version of Liquid Rubber call for details

The below roof types below will require one coat of the Proflex Primer to before application of Liquid EPDM Rubber

- Built-up asphalt roofs-You would frst need to apply the Proflex Primer before applying the Liquid EPDM.
- Modifed asphalt roll roofng - First needing the Proflex Primer
- Stainless steel-Only if sanded
- Neither the primer nor Liquid EPDM can be applied to glass
- Silicone caulk-Any silicone caulk needs to be removed and replaced with either butyl or acrylic caulk
- Heavily trafcked surfaces, such as decks or porches
- Wood applications; however these are not warrantied as we cannot verify the condition or quality of the wood
- Concrete where there is little foot traffic (concrete applications require one coat of the Proflex Primer)
- Any roof where a third party coating, such as an elastomeric or acrylic, was previous applied
- RV's or motor homes made by Fleetwood
- Urethane foam will require the Moisture Cure Version
- Asphalt shingles will require the Proflex primer and are not covered under warranty
- OSB; however these are not warrantied as we cannot verify the condition or quality of the wood

Requires Bonding Primer and Moisture Cure Liquid EPDM-Call for Pricing

- Hypalon Membrane
- PVC
- TPO-Requires supercoat; please call the office for details

Environmental Impact

Liquid Rubber® meets the EPA's limits for volatile organic compounds (CVOC), and the solvent contained in the product is not photochemically reactive. There are no leachable components to contaminate surface or groundwater. The greatest beneficial environmental impact, however, can be attributed to the long-term durability of the product. This necessitates fewer recoats, which translates into less total VOC emissions over the life cycle of the coating.

Cure Mechanism

Cross-linking takes place at ambient temperatures. Free radicals resulting from the decomposition of the organic peroxide cause cross-linking to take place. The rate, at which the peroxide decomposes determines the rate at which the system will cure. This rate is governed by temperature and the availability of oxygen. Oxygen is necessary to activate a catalyst which promotes peroxide decomposition at lower temperatures. The cure mechanism in EPDM Liquid Rubber® will vary from active to inactive as determined by temperature. Faster cures and slow cures over extended periods of time result in identical physical properties. Broad day/night temperature swings in spring and fall will not compromise the final physical properties of the Liquid Rubber® membrane.

For Those With Tar or Asphalt-Based Roof Systems

Proflex Primer

Previously, customers had issues regarding their asphalt roofs or situations where elastomeric or acrylic products were ap-plied and wanted to use the liquid EPDM rubber. We always had to turn them away since the liquid epdm rubber would not effectively bond to those surfaces. Thanks to the manufacturer and years of field testing, we have a cost-effective solutions for 95% of all roof types. Today, you can now use the liquid EPDM system by simply applying 1 coat of the Proflex primer. It comes as a set gallon part A and gallon part B providing 200 square feet of coverage.

ROOF TYPES NEEDING PROFLEX PRIMER

- Hot Mop
- Modified Bitumen
- Built up
- Asbestos
- Any third-party coating, such as elastomeric and acrylics.

Instructions for Application of Proflex Primer

Once the Proflex is applied, the Liquid EPDM must be applied within 24-48 hours to ensure proper adhesion.The Proflex needs to be a little tacky when applying the Liquid EPDM. If the Proflex is tacky but does not pull up when you walk on it, that is the ideal condition to apply the Liquid EPDM. If the Proflex is allowed to dry, the Liquid EPDM will not adhere properly. This will necessitate your waiting until the Proflex has fully dried and then sand and recoat before reapplying the Liquid Rubber.® The day which you apply the ProFlex primer needs to be above 50 degrees. Lower temperatures at night will slow the cure but will not affect the product. Do not apply ProFlex if you anticipate freezing temperatures BEFORE you are able to apply the Liquid EPDM Rubber.

USAGE

- Existing epoxy and urethane coatings cannot be readily recoated without encountering intercoat adhesion problems. Proflex Primer makes it possible to recoat them with the same or different type of coating.
- Severely weathered wood and insulating foams have degraded surfaces that can be "reconstituted" with an application of Proflex Primer that can then be top coated.
- Proflex Primer when applied to EPDM rubber membrane will prevent swelling caused by absorption of oils, fats, and solvents around restaurant roof vents.
- Thermoplastic roofing membranes, such as Hypalon and others, can be recoated after applying Proflex Primer.
- Applications of the proflex primer over water based acrylic elastomerics are not covered under warranty

PROPERTIES AND APPEARANCE

Cured films are quite flexible, yet have high bond and tensile strength. This enables the product to reconstitute and stabilize severely deteriorated surfaces. Although Proflex Primer has good water, solvent, and chemical resistance, it is primarily designed to be an intermediate bond coat so that high-performance and special purpose coatings can be applied to existing substrates.

SURFACE PREP

Substrate should be dry and free of debris, dirt, moss, algae, mildew, and oil. Loose or peeling paint must be removed. Make repairs and tighten or replace fasteners before appliying primer. High-pressure washing is an effective cleaning method.

METHOD OF APPLICATION

A combination of rubber squeegee, roller, and brush are most practical on flat surfaces. A pressure pot spray system may be used if pot life limitations can be adhered to.

RECOMMENDED SPREADING RATE

When spread at 250 sq. ft. per gallon, a 5.5 mil dry film will result on a smooth surface. Although this is sufficient for bonding to the substrate, it may be difficult to achieve in practice. A squeegee and roller application will usually result in covering 100 sq. ft. per gallon.

PRODUCT DATA

Chemical Type	Two component, flexible Epoxy
Solids Content	86% by volume; 89% by weight
Weight per Gallon	9.2 pounds
Spread rate	200 Sq. Ft. per Gallon Set
Mix Ratio	1 to 1 by volume
Viscosity	71KU (900 cp) @ 77° F
Pot Life	45 minutes at 70° F
Cure Time	10 hours to touch at 70° F
Bond Strength	250 psi (aged)
Tensile Strength	404 psi after 7 days at 77° F 2500 psi after 7 days chilled
Elongation	200% at 77° F
Flash Point	Above 150°
Compatible Solvents	Xylene, Toluene
Storage Stability	1 year minimum
VOC	118 g/l (.99 lb/gallon)

The above data is gathered in a controlled laboratory environment. Your conditions will vary. Pot Life, Gel Time, Dry Time, and Cure Time will all be affected by ambient as well as surface temperatures. Higher temperatures shorten the time you have to work with the product. Always mix thoroughly and immediately pour the product onto the surface to be coated. Only mix the amount you can easily spread within 30 minutes. If more specific information is needed, please call EPDM Coatings at 855-281-0940.

OUTSTANDING APPLICATION CHARACTERISTICS

- Extremely high resistance to penetration of water
- Ultraviolet and ozone stable
- Excellent long-term aging properties
- Very broad temperature tolerance range (from 300° F to -62° F)
- Acid and alkali resistant
- Resistant to polar solvents
- Withstands ponding water even when not cured
- Caution: Oils, fats, and waxes swell the polymer

Application Characteristics

The slow curing and nonpolar nature of EPDM Liquid Rubber® give it outstanding surface wetting properties. The product does not fill cracks and crevices but will produce an even film penetrating even the smallest cracks and irregularities.

An example of this is when EPDM Liquid Rubber® is applied over porous surfaces such as poured concrete. Pinholes will appear on the surface, as the material slowly displaces the air in the pores. This surface wetting feature enables the product to be applied in a single coat over nonporous surfaces and still result in complete film integrity. EPDM Liquid Rubber® is hydrophobic in its liquid state and cured state. It can withstand water immersion at any stage of its cure cycle. Liquid Rubber® should not be used where the material does not have exposure to oxygen, such as between 2 impervious materials. When oxygen is available, curing takes place from both the top and bottom of the film. There is sufficient oxygen available on most surfaces to initiate cure from the bottom. Oxygen readily penetrates films 20 mils thick. Curing is considerably retarded in thick films, but cures do take place in thicknesses up to 75-80 mils within a 3 month period at temperatures over 70° F. EPDM Liquid Rubber® can be applied to hot roof surfaces encountered during the summer. The solvent in the system will flash off rapidly, but the polymer will remain soft long enough to permit overlapping even after 1-2 hours.

On some materials, such as EPDM rubber sheets, some swelling may occur due to solvent absorptions after applying EPDM Liquid Rubber®. This is normal. Swelling will recover with time and heat. In 80° F or hotter, allow 7 to 14 days to recover. In colder temperatures, recovering will take several weeks-as much as 6 to 8 weeks in 60° F.

COMMERCIAL & INDUSTRIAL APPLICATIONS

Steel siding for buildings
EPDM rubber is an excellent recoating product for roll formed steel siding, which tends to corrode at the bends. The rubber can be applied as a one-coat system with no corrosion inhibitive primer needed.

Fabricated steel in marine environments
Cranes, tanks, and support structures at dock facilities experience accelerated corrosion rates due to saltwater exposure. EPDM rubber coatings are not affected by salt and are ideal for this type of environment.

Steel storage tanks
Elevated, or on ground surfaces, steel storage tanks can be effectively protected with a rubber coating. Surface condensation, cathodic protection, and thermal stresses between sun and shady areas don't cause problems for the coating.

Concrete pipe and spill containments
EPDM rubber coatings are very effective for protecting concrete pipe against saltwater corrosion. They can tolerate higher temperatures, exposure to strong sun, and have 2.5 times higher solids than liquid Neoprene coatings.

MANUAL APPLICATION PROCEDURES

EPDM Liquid Rubber can be applied directly on many types of surfaces with solid, stable, nonporous, and uniform surfaces, such as flat roofs. For most surfaces, primers are not necessary. Some types of surfaces that can be coated with Liquid Rubber EPDM are:

EPDM Rubber Sheets / Roofs-Galvanize Steel Panels / Roofs -Nonpolished Aluminum Sheets / Roofs -Steel Plates (Painted, Unfinished, Light Corrosion) Fiberglass Panels / Roofs-Wood & Plywood (treaded with oil-based primer) Nonporous / Steel Troweled Concrete Surfaces / Masonry.

Though Liquid Rubber EPDM can be applied using airless spray equipment, this guide is for manual applications with recommended surfaces of less than 10,000 sq ft. Please contact us for information on using spray equipment. Spray procedures can be found on page 15

Besides flat and sloped surfaces, Liquid Rubber EPDM has enough consistency so that it can be applied on vertical walls or surfaces at about 20 mils or thinner per coat. The prime considerations when applying on sloping or vertical surfaces should be safety and falling hazards.

Planning


BEFORE


AFTER

Work on days when rain is not expected and temperatures are above 50 degrees. The product begins curing or drying above 50 degrees. The temperature can go below 50 degrees with no effect on the performance of the product. The product simply will not continue to cure until it gets above 50 degrees again. Since the product immediately waterproofs, there is no need to worry if you just finished and a light rain comes through. In fact, if the temperature of that ponding rainwater gets above 50 degrees, the Liquid EPDM will even start curing underwater. Since its dry time is affected by temperatures, a good rule of thumb depending on your overall day and nighttime temperatures is that within 24 hours the coating develops a "skin," and within 72 yours the product can be walked on. A full cure is achieved normally within 4-10 days of application. The higher the temperatures, the quicker the cure.

The curing process is actually the biggest advantage over any other coating on the market today and the reason for its 25-year history of success. As the product cures; if you were to cut out a cross section of the material and look at it under a microscope, you would see small bubbles being forced to the surface. What is occurring is the catalyst is pushing up what would otherwise be trapped air to the surface, allowing the Liquid EPDM to form an airtight and vapor-tight seal. Unfortunately, other coatings dry quickly, leaving trapped air caught between the coating and the original roof substrate. This makes other coatings very susceptible to cracking as temperatures change particularly metal roofs. The key to success of the Liquid EPDM over other coatings has been proven in the test results against water-based coatings, elastomerics, urethanes, and acrylics. It has outperformed the acrylics and elastomerics 4 times longer and the urethanes 3 times longer. A 1 coat application of Liquid EPDM will not require a recoat for 18 and 20 years, whereas other roof coatings will begin cracking within 2-4 years.

Preapplication Inspection of Roofs/Surfaces to be coated

Inspect your roof or surfaces for structural damage, tears, leaks, gaps, corrosion, etc. Light surface corrosion if adhering well to the roof or surface can be either lightly sanded off or may be left. Heavy corrosion should be removed, and a good corrosion inhibitor/primer should be applied. Check with the primer manufacturer, and wait for the recommended dry time before applying Liquid Rubber® EPDM over these areas.

With heavy leaks, inspect the wood deck (or roof structure) for structural damage (rot) and under skin corrosion Any type of coating, including Liquid Rubber EPDM, will not fix structural damage and under-skin corrosion by itself. Any structural fault should be fixed first, under-skin corrosion should be stopped, and metal roof skins should be replaced if corroded too thin before applying Liquid Rubber EPDM. Under-skin corrosion may be due to trapped moisture between the skin and the roof structure, degradation of glues used to bond the skin and the roof deck, or a combination of these. In such conditions, the damp area acts as an electrolyte, causing galvanic corrosion. This corrosion will propagate under the skin and eventually corrode through and fail irrespective of any coatings applied on the topside of the skin. Galvanic corrosion can occur with all types of metal roofs, including aluminum.

Dampness may also rot wood roof deck/structure sections, compromising the structural integrity of the surface. Rotten sections should be replaced. All dampness and old glue should be removed and rebonded with quality glue or refastened mechanically. In situations where leaks have occurred but no structural damage or rot has set in, be sure to dry the wood roof deck/structure and under-skin before sealing leaks and coating with Liquid Rubber EPDM.

Surface Preparations

After inspecting and repairing structural faults and under-skin corrosion, any asphalts or silicone type of caulking on the roof/surface should be removed. Asphalt products and silicone are not compatible with Liquid Rubber EPDM.

Any holes, gaps, seams, or tears (of more than 1/16" wide) should be repaired or reinforced. Any potential weak areas should be reinforced (consult with our Technical Service Department and ask for detailed reinforcing procedures). Fill holes and low spots should be filled with non-silicone caulking or epoxies to "plug leaks" and level "low spots." to before coating, clean and wash the surface with detergent (soap) and water, ensuring that surface is free of oils, dirt, debris, and flaking paints. Applications of the proflex primer over water based acrylic elastomerics are not covered under warranty.

If the surface has fungus, molds, algae, or other biologicals, you may need to soak these areas in a one-third bleach and water solution to kill the biologicals. Let it soak until the solution evaporates. You will still need to scrub (with a stiff brush) these areas with soap and water after soaking with the bleach solution, as some biologicals anchor onto certain types of surfaces and must be mechanically removed even after killing.

Thoroughly dry the roof to before applying Liquid Rubber EPDM. Unwanted splatters and drippings can be removed with rags and xylene or mineral spirits when wet (within 4 hours after application). Use a short nap roller and a paintbrush to apply Liquid Rubber EPDM manually. Use a brush for hard to reach areas.

Broadcast and spread using a short nap roller to release trapped air and a rubber squeegee to evenly distribute the Liquid Rubber EPDM. Using a long mop-type handles for the standing up and not on your knees.

It is important to apply an even distribution of Liquid Rubber EPDM and at the correct thickness. Too little material will produce too thin of a membrane, with inadequate adhesion and inadequate film strengths. Too much material will be wasteful, may cause under cure situations/long cure situations, and may cause excessive swelling with some types of sheet rubber roofs.

The optimum thickness for most purposes (nonimmersion conditions) is one coat at a 20 mil.

A) Clean and prepare the surface to be coated as directed.

B) Reinforce with Butyl Tape & Polyester Fabric if needed (gaps, tears, seams, pin-holes, defects, etc.). Check with our Technical Service Department for procedures.

C) Catalyze and apply Liquid Rubber EPDM on the surface/roof as described, and use a squeegee, roller, and brush to ensure an even application of 20 mils. To achieve a 20-mils thickness, conduct a spreading rate calculation. For fairly smooth surfaces, such as EPDM sheets, unpolished metals, fiberglass roofs, etc., use a spreading rate of about 40 sq. ft. per gallon. Reduce this for rougher surfaces, e.g., steel-troweled concrete surfaces, and use a spreading rate of about 30 sq. ft. per gallon.

Surface Area

When calculating the applied surface area, ensure you measure true surface areas. For example, if a panel is corrugated, take into account the corrugations when calculating the surface area of the panel. If you have not applied Liquid Rubber EPDM before, apply it in several premeasured sections. The first section will give you a feel for the product and how fast you are able to apply it. You can then do larger areas in subsequent sections.

We recommend you apply 2 gallons first, over a pre-measured 80-sq.-ft. section. When applied evenly, you will form a 20 mil. thickness after it's cured. Spread the product evenly-not thick in some sections and thin in others. In 75° F to 85° F, the product will start to thicken in about 4 hours. Plan your work sections within a 4-hour time frame or less.

Reinforce seams, cracks, and defects with butyl tape and polyester fabric following the instructions below:

A) Clean and prepare surface to be coated as directed on label.

B) Cut a strip of Butyl Tape to cover and bridge cracks, holes, and defects.

C) Lay the Butyl Tape flat on the surface, and use a hard roller to flatten kinks out.

D) The Butyl Tape has adhesive surfaces on both sides and will hold the polyester fabric in place. Flatten the polyester fabric with hard roller as necessary.

E) Saturate the polyester fabric with Liquid Rubber. After curing, this section will be reinforced by the Fabric-Liquid Rubber composite.

Corrosive Environments

Corrosive environments are created by many industrial operations where acids are used. Similar conditions can also be produced organically in poultry and hog production operations, which generate high volumes of manure. EPDM coatings can protect steel and other construction materials from rapid deterioration in these environments.

Liquid Rubber® should not be applied directly over an asphalt-based coating or water-based acrylic elastomeric coatings. For these surfaces, you will need to first apply 1 coat of the Proflex Primer.

One component thermoset. Non-thermoplastic materials, regardless of shape, can now be coated with EPDM rubber as a protection against corrosion or chemical attacks. The coating can be applied by spray, dip, or flow methods and cured in an oven at temperatures from 250° to 300° F. These single component products are custom-formulated for a specific application, have good storage stability, and are very easy to apply. Viscosity and solids content can be controlled and make it possible to apply thin as well as thick coatings.

What You Will Need

GALLON CONTAINERS

- 3/8”electric drill
- Gallon mixing shaft
- Short nap roller (6 inch)
- Masking tape
- Paint thinner for cleanup

4 & 5 GALLON PAILS

- 1/2”electric drill
- Pail mixing shaft
- Short nap roller (6 inch)
- Masking tape
- Paint thinner for cleanup

BUTYL TAPE AND POLYESTER FABRIC

To strengthen a damaged roof skin or fo reinforcing any worn seams.

TOOLS, EQUIPMENT & MIXING INSTRUCTIONS

(Electric drill, mixer shaft, pop rivets, wire brush, sandpaper (60 grits), spatula, paintbrush). The container is underfilled to allow for the addition of the premeasured catalyst that is included. A drill and a mixer (shown below)will be needed to incorporate the catalyst. For a 1-gallon can, a short mixer will suffice. For 4- or 5-gallon pails, you MUST use a long shaft mixer. The catalyst will be inside the box for 1-gallon and 1-gallon repair kits. The catalyst will be located under the lid in 4- and 5-gallon pails.

Mix rubber material in the can until it’s uniform. Center the mixer shaft in the can, and begin mixing until a vortex is formed. Slowly pour all of the catalyst into the vortex. Move the mixer up and down and in a circular motion for 2 to 3 minutes until all portions of the can ar e uniformly mixed.

Scan the QR Code for more mixing instructions.

EPDM coatings

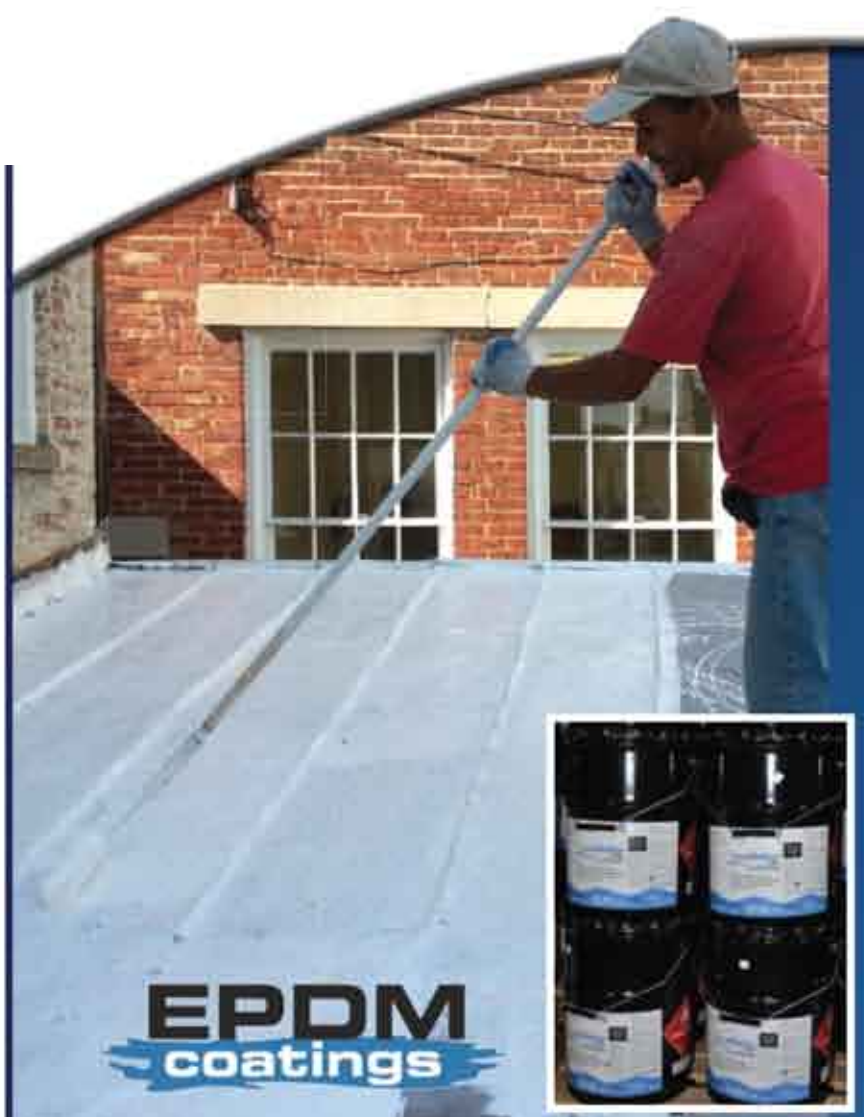
APPLICATION PROCEDURES

1) Incorporate the supplied catalyst using a drill and mixer shaft by following the label directions. Once you have mixed in the catalyst, you have approximately 4 hours to use the material, which is plenty of time.

2) Apply masking tape to perimeter of roof or wherever straight edges are desired. The tape can also act as a catch basin for sags if only 1 edge is attached to the roof and the rest is formed into shape of a gutter.

3) Pour some material onto the roof, and use the squeegee to distribute it over the surface. Follow with the roller to even out the wet film. The product will self-level. Use a brush around vents, ladders, and antennas. Brush and roller marks will disappear when sufficient material is applied. Work from front to rear.

4) Masking tape should be left on until the rubber is solid enough to be touched.



To Stop Leaks

1. Use a wire brush to clean edge-strip, seams, and flashings. Use a sharp-edged spatula to remove cracked or brittle caulk. Rough up smooth surfaces with sandpaper.
2. Apply masking tape when a straight edge is desired, leaving 1 1/2" on either side of the seam for coating.
3. Apply one coat of Liquid Rubber®. (catalyzed) with a brush to all seams, flashings, and remaining caulk.
4. Remove masking tape the following day after rubber has undergone a partial cure.

To Repair Cracks

1. Sand area to 3" around crack.
2. Cut butyl tape to overlap tear. Center over tear, and press on with release film attached.
3. Remove film. Cut polyfabric to fit, and press into butyl tape.
4. Coat over fabric with Liquid Rubber®.

To Repair Rips and Tears

1. Trim ragged edges of damage.
2. Cut new aluminum plate to overlap damaged area by 3".
3. Drill rivet holes 1/2" from edge 1 1/2" apart.
4. Remove plate and apply rubber over holes.
5. Pop rivet plate, and coat with Liquid Rubber®.

EPDM coatings

CHEMICAL COMPOSITION

Liquid Rubber® is based on a low molecular weight polymer of Ethylene and Propylene with a pendant group of Dicyclopentadiene (EPDM). The Ethylene-Propylene backbone is saturated, and cross-linking takes place via the DCPD group. The cure rate is still controlled even at temperatures up to 120° F and will not result in a porous film. The product can be safely applied on very hot days. The controlled cure rate also results in a long pot life, giving the applicator more than an adequate length of time (4 to 6 hours depending on temperature) to use the mixed quantity.

ADHESION

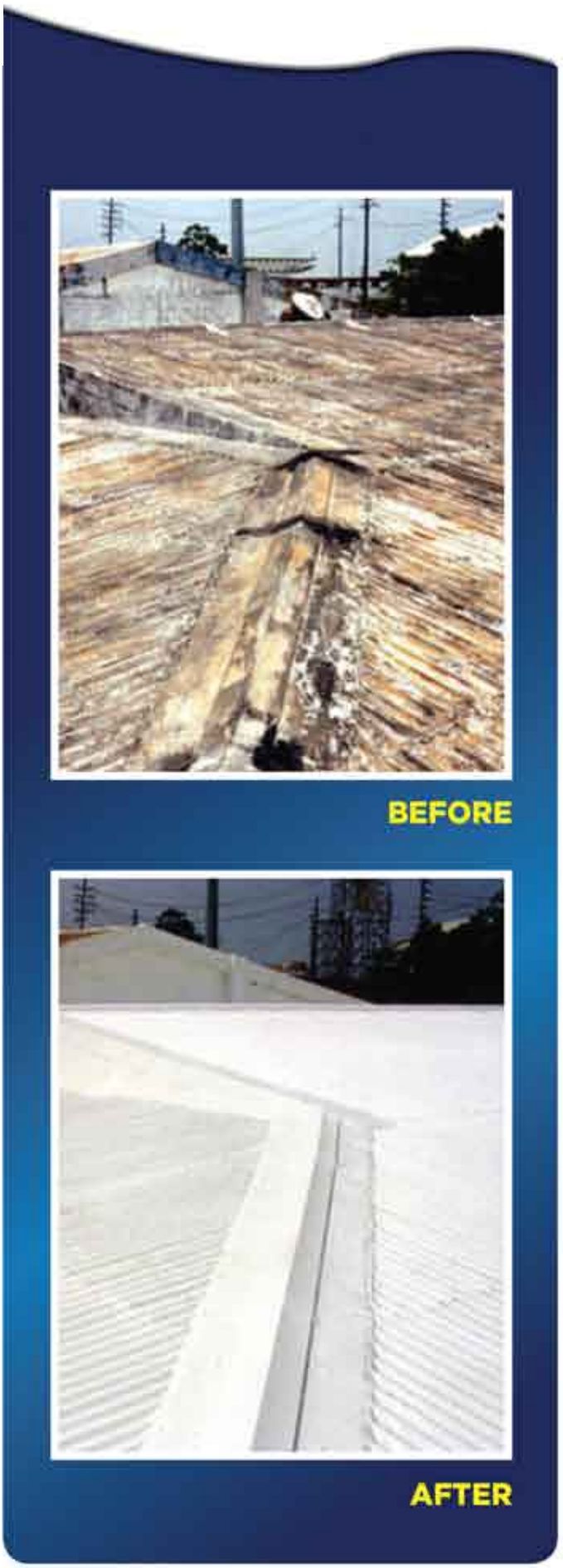
Adhesion will increase over time. Polar surfaces, such as metal, concrete, and wood, result in stronger adhesion than nonpolar surfaces, such as asphalts and single-ply EPDM sheets. Most weathered surfaces, including single-ply and thermoplastic membranes, will have enough of a surface profile to anchor the Liquid Rubber®.

DURABILITY

By itself, the Liquid Rubber® membrane will exhibit the characteristics of its EPDM chemistry, including UV and ozone stability, excellent ponding water resistance, and long-term retention of flexibility. However, since it is always applied to an existing roof surface, the condition of that surface will determine overall life expectancy. Liquid Rubber® applied over generally sound single-ply EPDM can extend its life another 20 years. The useful life of metal roofs also benefits greatly when Liquid Rubber® is applied. BUR systems often have existing problems, such as delamination between layers, buckling, and stress cracking. These are further aggravated by wet insulation, which often results in severe corrosion and weakening of the metal supporting deck.

Projecting a life expectancy for the EPDM Liquid Rubber® membrane comes down to a case by case basis. When the EPDM membrane is compared with urethanes, acrylics, and other elastomers in accelerated weathering and heat aging tests, EPDM is superior.

To recoat weathered metal, sheet rubber, urethane foam, and modified asphalt roll roofing, it's your best choice. It's excellent for waterproofing concrete roof decks and roof tiles. It can be applied directly to plywood and lumber. Liquid Rubber® is also a very effective coating for steel, especially when exposed to a salt environment.



Application Tips for Contractors

Liquid Rubber® is a 2-component solvent solution version of the single-ply EPDM membrane rubber. Its physical properties and method of cure make it unique among liquid applied coatings. The unique combination of properties of Liquid Rubber® include:

- Can be applied up to 35 mils in 1 coat
- Waterproofs immediately upon application
- Penetrates into cracks and crevices
- Can go directly over a lightly rusted surface without a primer
- Cure is not affected by relative humidity
- Freezing does not damage uncured coating
- Can withstand ponding water or immersion indefinitely
- Tolerates a wide temperature range from minus 60° to 300° F.

Liquid Rubber® has application and spray characteristics that are considerably different from other types of liquid coatings. Although Liquid Rubber® has a heavy consistency, it will self-level and penetrate small crevices and pores. It is also harder to brush and more difficult to atomize for spray. The 2 efficient methods of application are:

For Flat Surfaces (flat or low slope)

First, catalyze the rubber: Pour the product onto the surface, and broadcast it with a rubber-edged squeegee. Follow this with a short nap roller to evenly distribute the wet film. Spread rubber at no more than 42 sq. ft. per gallon.

Spray Application

Use an air-atomized or airless spray, roller, squeegee or brush. A combination of methods may be most effective. For example, on a flat roof, pour a serpentine bead of material from the pail. Distribute it with squeegee. Finish it with a short nap roller to press air out of cracks and even out the wet film.

A) Equipment: Use a 3 gallons per minute airless spray pump capable of developing a minimum 3,000 psi outlet pressure. It should have a 3/8" ID hose or larger with a max length of 100 ft. Use a tip size of .015 or .017 for smaller pumps and a .019 tip for larger capacity pumps. Use a 100 mesh strainer at the outlet of the pump or in the handle of the gun. Use a swivel fitting at the gun in place of a "whip" to reduce the pressure drop through a smaller ID hose.

B) Thinning: It will be necessary to thin Liquid Rubber® with xylene solvent before it can be sprayed. The amount of xylene needed will vary depending on pump size and material temperature. The following is a recommended starting point procedure for thinning a 5-gallon pail:

1. **Add 1 gallon of xylene to the pail, and mix until uniform**
2. **Add the entire amount of catalyst supplied and mix thoroughly**
3. **Transfer contents to another pail**
4. **Start the pump, and check the spray pattern**

Note: If spray is too coarse, try a .015 tip. If this still isn't enough, add another quart of xylene to the 2 1/2 gallons of rubber in the pail.

Once an acceptable spray pattern is achieved, use the same amount of xylene to dilute each succeeding pail. Pour newly mixed rubber into the pail under the pump as needed.

Troubleshooting Procedures

Poor spray pattern and clogging of the tip are the most frequently encountered problems during application. These are often caused by inadequate flushing and poor maintenance of the equipment. Check to make sure the 100 mesh strainer is clean before starting.

Problem: Poor spray pattern.

Solution: Follow thinning procedure in B.

Problem: Still getting a poor spray pattern, even after thinning rubber with 1 gal of xylene per 5-gallon pail.

Solution: Starting at the gun, successively remove 1 component at a time, (i.e., tip, tip extension,gun filter, gun, strainer at pump, etc.) and check the flow. With tip removed, the material flow should be steady and strong (discharge into pail at pump).

If tip extension is removed and flow increases noticeably, the ID of the extension is too small. Remove or replace.

If discharge stream is weak and pulsating, attach gun and open drain cock at strainer to see if condition is the same there. If pulsation persists, the problem is in the pump. (The balls are not seating properly or are dented and need to be replaced.)

HOW TO ACHIEVE MINIMUM DRY FILM THICKNESS

Liquid Rubber® must be applied at a rate that will produce a minimum dry film of 20 mils. This can be accomplished in one coat by applying the rubber at a rate of 200-220 sq. ft. per 5-gallon pail when undiluted (6 or 6 1/2 gallons when thinned with xylene). The actual (expanded) surface area must be used for this calculation.

Example

If the expanded area of a ribbed or standing seam roof is 1.2 times the length and width area calculation and 1.5 gallons of xylene thinner is used per 5 gallons of rubber, how much material will a 3,000-sq.-ft.roof require?

$$\frac{\text{3,000 sq. ft. x 1.2}}{\text{220-sq.-ft./pail}} = \frac{\text{3,600}}{\text{220}} = \text{16.36 pails x 5 gal = 82 gallons}$$

UNDILUTED

$$\text{16.36 pails x 1.5 gal xylene/pail} = \frac{\text{+24.5 gal xylene}}{\text{106.5 gal}}$$

DILUTED RUBBER

SPREAD RATE

The spread rate is 220 square feet. The expanded area per 6.5 gallons of diluted rubber (5 gal rubber + 1.5 gal xylene) is adjusted to the length X width roof dimension.

220
1.2 **= 183 sq. ft. of roof area (L x W)**

THEREFORE:
When 6.5 gal. of diluted Liquid Rubber® is applied to 183 sq. ft. (LXW) of roof, an average dry film of 20 mils will result.

Liquid Rubber® is designed to recoat structurally sound existing roofs and protect materials. It should not be used in place of roofing membranes.

Technical Data

Volume Solids:	63.5%
Spreading Rate:	A 20 mil. dry film will result when liquid is applied at the rate of 43 sq. ft. per gallon on a smooth surface. A rate of up to 45 sq. ft. per gallon allows for average surface roughness.
Coverage:	42 sq. ft. per gallon at 20 mils
Weight/Gallon:	8 pounds (mixed)
Elongations:	180%-200%
Brittle Point:	-62° F
Permeability:	0.1 perm
Weatherometer:	2,000 hours (ASTM D4459-8-03)
Peel adhesion:	4.85 pounds per linear inch on Firestone EPDM
Pot Life:	4-10 hours depending on temperature
Cure Rate:	70° F, 7-8 hours to touch 24-30 hours to walk on 5-7 days for full cure
Thinner:	Most aliphatic and aromatic hydrocarbon solvents (mineral spirits, VMaP Naphtha, xylol). Weaker solvents should be used when coating EPDM rubber sheet to min-imize distortion.
Chemical Resistance:	Cured EPDM rubber is resistant to acids, alkalis, and polar solvents (alcohols, ke-tones, glycols). Oils and fats will soften the rubber and should be avoided.
Cure System:	Two-component, peroxide-initiated free radical cure
Heat Resistance:	302° F at continuous exposure
VOC	2.46 pounds per gallon (295/grams liter)
Tensile Strength	746 psi

Cure Conditions

The cure rate of Liquid Rubber® is temperature dependent. Higher temperatures will accelerate the cure, and lower temperatures will retard it. Contact with air is required. For example, if a rain shower develops before material has cured (material may still be wet) and water collects on the surface, rain won't penetrate the coating. However, the curing process will not begin unless the material is exposed to air. The material underwater will remain uncured until the water has evaporated and the surface again becomes exposed to air.

TESTIMONIALS

Resort Property (Mexico)
Project Overview:

Project involved 7 Buildings of which 6 were typical and one slightly larger. Roofs were approx. 5500 square feet. Total square footage of the project was 50,000. Buildings are 8 years old and due to Existing single ply Torch on failure and substrate failure, all roofs were removed and new concrete poured to accept EPDM product. Proper slopes were incorporated in new roof design including proper drainage and scupper installations. Project is located 30 miles North Of Manzanillo Mexico on the west coast. Units are on the Ocean and subjected to high humidity, sea salt and heavy rains in July to October especially. A six man crew was required as they worked in pairs to complete tasks

---

"Wanted to reach out to you and express my gratitude. The project came out just great. Everything you said exactly. Not saying that I did not believe you guys, but there is a lot of cheap stuff out there. Well worth the price knowing that in 18 years from now it will still be worry free. It is actually quite amazing when it fully dries it looks like the liquid epdm was part of the manufacturing process when the metal was made. My compliments to your knowledgeable staff and thanks for taking the time to understand my specific situation and give me the guidance. Not an easy trait to find in companies today."

Thanks again
NJB Carpentry

"Hello, like to thank you for this wonderful product I used on my 24 RV. The roof was 10 years old and needed something done to it before it began to leak. After days of research at many RV shops and the Internet, I found your product and used it. All I did was wash the roof before using your product. It took a few hours to complete the job, and overall, it was quite easy to apply. I used a small "roller" and a paintbrush. The fnish results were like night and day. A truly wonderful product and I highly recommend it to other RVers... Thanks again."

Dave Shingleton
PS. Here are the "before" and "after" pictures of my roof...what a diference...

Here is a sample of some of the companies over the years that have come back time and time again!

JFK Airport
New England Patriots (Gillette Stadium)
U.S. Army
FAA
Kennedy Space Center
Tesla Motors
Piggly Wiggly Grocery
Dallas Airport
NASA
Kohl's Department Stores
Marriott Hotels
Holiday Inn
Dow Chemical Corp
UPS
Quality Inn Suites
Federal Bureau of Prisons
Applebee's Restaurants
ABB Asea Brown Boveri
Cyalume Light Technology
Hampton Inn
Siemens Rolm
Mystic Aquarium
Convault Tank
Pan Jit
Embassy Suites
New York City-DOT
Days Inn

EPDM coatings

25-Year History of SUCCESS

610-298-1989 • epdmcoatings.com