LIQUID
BUTYL RUBBER

MANUFACTURING THE ONLY LIQUID BUTYL RUBBER IN THE WORLD FOR OVER 25 YEARS!

EPDM coatings

25-Year History of SUCCESS

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RV ROOF MAGIC

BUTYL LIQUID RUBBER

Pond Pro 2000®

SKYLight - 911

A SAMPLE OF EPDM COATING'S CLIENT LIST

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

John F. Kennedy International Airport

New England Patriots

U.S. Army

Federal Aviation Administration

Kennedy Space Center Visitor Complex

Tesla Motors

piggly wiggly

DFW Dallas Fort Worth International Airport

NASA

KOHL'S

Marriott

Holiday Inn

Dow Chemical Corp

UPS

Quality Inn & Suites by Choice Hotels

Federal Bureau of Prisons

Applebee's

ABB Asea Brown Boveri

Cyalume Light Technology

Hampton by Hilton

SIEMENS Ingenuity for life

Mystic Aquarium

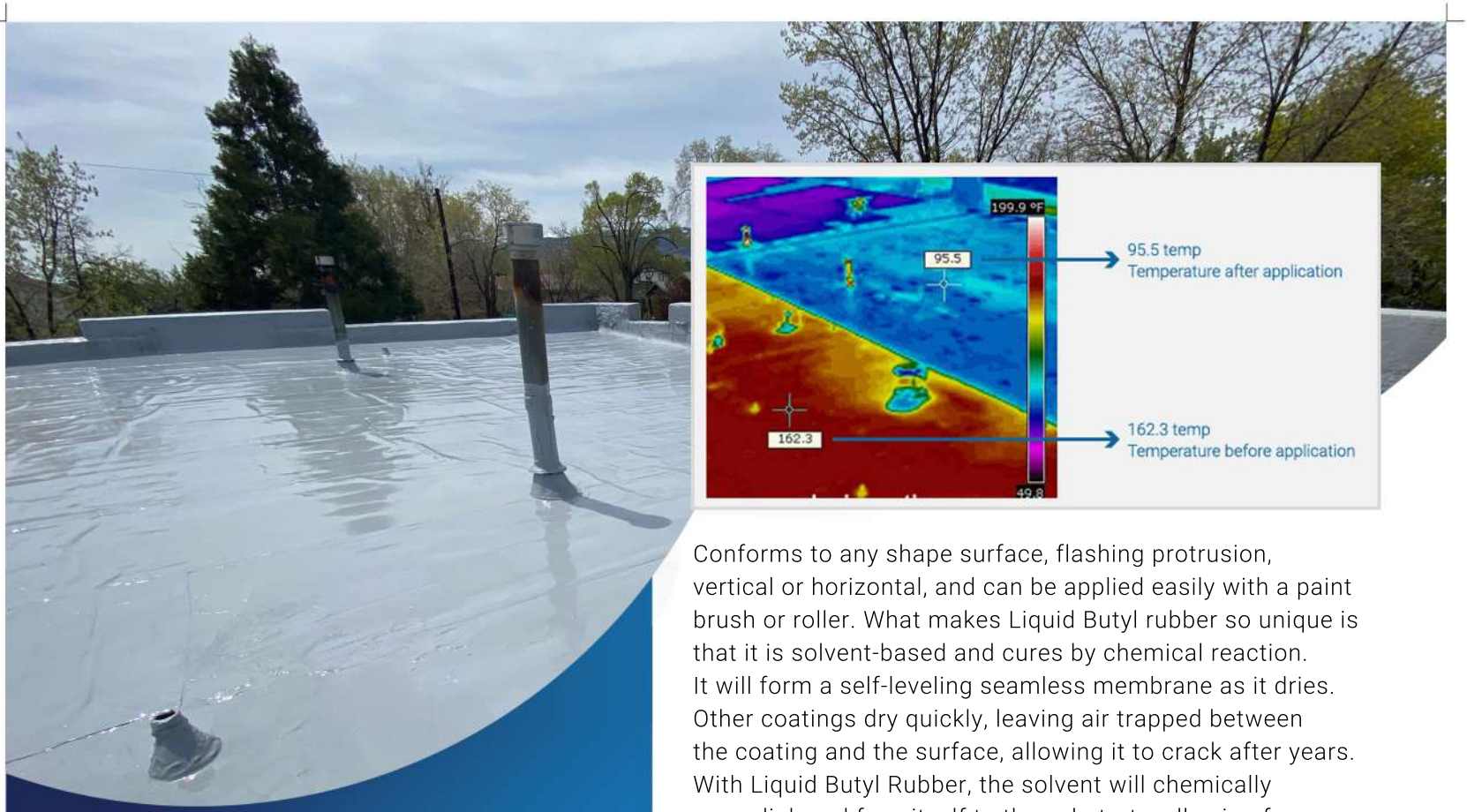
Convault Tank

PANJIT Semiconductor

Embassy Suites by Hilton

New York City DOT

Days Inn



Conforms to any shape surface, flashing protrusion, vertical or horizontal, and can be applied easily with a paint brush or roller. What makes Liquid Butyl rubber so unique is that it is solvent-based and cures by chemical reaction. It will form a self-leveling seamless membrane as it dries. Other coatings dry quickly, leaving air trapped between the coating and the surface, allowing it to crack after years. With Liquid Butyl Rubber, the solvent will chemically cross-link and fuse itself to the substrate, allowing for years and years of performance; even under the most trying of elements.

Liquid Butyl 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. Its chemistry provides extended durability, water resistance, a broad temperature tolerance and chemical and mold resistance. Liquid Butyl Rubber forms a flexible membrane up to 30 mils thick with one coat. The environment can vary from high humidity to total immersion. It withstands constant or cyclic temperature changes from minus -40° F to 200 °F. It resists corrosive environments, including vapors, liquids and salt environments. Liquid Butyl Rubber is an extremely effective corrosion preventing coating for steel and metal. It does not contain any leachable or sacrificial components, so protection does not diminish over time.

KEY BENEFITS

- No Primer needed
- Indefinite pot life (with lid secured)
- 5 yr. shelf-life
- One coat application
- Will take standing water 365 days a year
- ASTM Tested
- Energy Star Approved
- Proven to outlast standard roof coatings 4X longer
- Liquid Butyl **Rubber** will form a seamless membrane.
- Will reduce dirt accumulation.
- Reduces mold and mildew (contains a mildewcide)
- Conforms to any shape or protrusion.
- Reduces heat buildup and noise
- Easy application
- Will withstand significant temperature swings.
- Waterproofs within a couple hours of application

EPDM coatings

LIQUID BUTYL RUBBER CAN BE APPLIED TO A VARIETY OF ROOFING MATERIALS WITHOUT THE NEED FOR A PRIMER

- Various Metal Roofing systems
  - Weathered Galvanized
  - Weathered aluminum
  - Weathered copper
- EPDM-Flash coat required,
- Any original EPDM rubber roofing system.
- Fiberglass
- Hypalon
- Acrylic Sheet and any acrylic based product
- Weathered Vinyl
- (Aged) Polyurethane Foam
- Torchdown
- Aged Vinyl (adhesion test required)
- Modified & BUR roofs
- Concrete, where there is little foot traffic.
- Any roof where a 3rd party coating such as an elastomeric or acrylic was previously applied.
- TPO-Must be aged five years.
  a. TPO must be cleaned specifically with Roof Protect found on our site
  b. TPO must have remaining service life. TPO scrim must not be visible throughout the field of the roof.
  c. Surface must be dry. Any of these could cause the material to blister/wrinkle
- Sprayed Urethane Foam Roofs- Be sure roof is dry. Moisture will cause coatings to blister (Call for tech support)

Cure Mechanism

The Butyl rubber cross linking takes place at ambient temperatures. Free radicals resulting from the decomposition of the solvent cause cross linking to take place. The rate at which the 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 the solvent which promotes peroxide decomposition The cure mechanism in Liquid Butyl 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 results of the Liquid Butyl Rubber membrane.

PLANNING

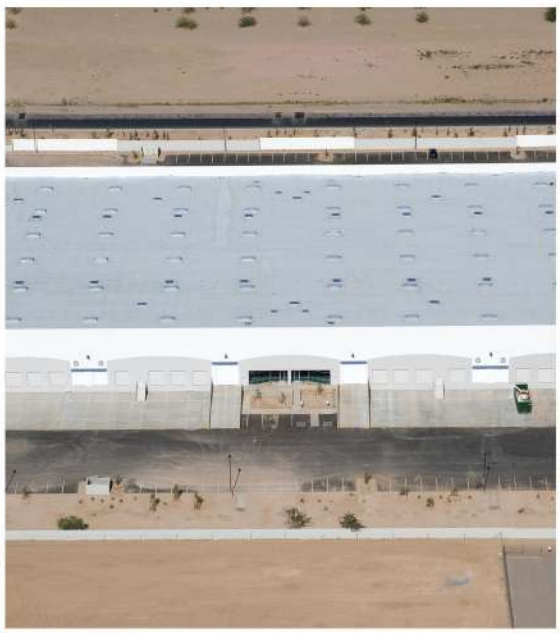
Work on days when rain is not expected and temperatures are above 50°. The product begins curing above 50°F. The temperatures can go lower during the night with no effect on performance. The product will simply not continue to dry until it gets above 50° again during the day. The product needs a couple hours for it to waterproof, but after that a light rain will not affect the product. Simply wait for the rain to evaporate to continue the project. The higher the temperature, the quicker the product will dry.

Pre-Application of Roof/Surface to be Coated

Inspect your roof or surface for structural damage, tears, leaks, gaps, corrosion etc. Light surface corrosion for adhering can either be lightly sanded or left alone. Heavy rusted areas need a rust inhibitor prior to application. With heavy leaks, inspect the wood deck (or roof structure) for structural damage (rot). Any coatings, including our Liquid Butyl Rubber, will not fix structural damage Any structural fault should be repaired first. Under-skin corrosion may be caused by trapped moisture between the skin and roof structure,.degradation of glues used to bond the skin and the roof deck, or a combination of these.

For EPDM Roof Only

Apply a "flash coat" (a very light coat) NO MORE THAN 0.75 gal per 100 square feet. The flash coat **DOES NOT** require purchasing additional material. Too thick of a flash coat may result in temporary bubbling of the material. A minimum 24-hour cure time is required before proceeding with main coat. Cooler temps or high humidity may retard your cure times. The flash coat must be completely dry before applying the final coat. After September, we suggest at least 36 hours between flash coat and main coat due to environmental conditions. Cooler ambient air temperatures and active dew points play a factor in the flash coat as they will also increase cure times.



OUTSTANDING APPLICATION CHARACTERISTICS

- Extremely high resistance to water penetration
- Ultra violet and ozone stable
- Built-in Mildewcide
- Excellent long term aging properties
- Acid and alkali resistant
- Excellent in salt-water environments
- Withstands ponding water 365 days a year

Application Characteristics

The curing process of Liquid Butyl Rubber gives it outstanding surface wetting properties. The product will fill the smallest cracks and irregularities. This enables it to be applied in a single coat over non-porous surfaces, and still result in complete film integrity. Liquid Butyl Rubber® can withstand water immersion within the first few hours of its cure cycle. Liquid Butyl Rubber® should not be used where the material does not have exposure to oxygen such as between two impervious materials. When oxygen is available, curing takes place from both 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 mil thick. Liquid Butyl Rubber is extremely easy to work with and, unlike other catalyzed products, as long as the lid is on tight, the product does not cure. This means no loss of materials if you get into a bind on the roof due to unforeseen interruptions.

COMMERCIAL & INDUSTRIAL APPLICATIONS

Steel siding for buildings

Liquid Butyl 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 salt-water exposure. Liquid Butyl Rubber is not affected by salt and is 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 containment

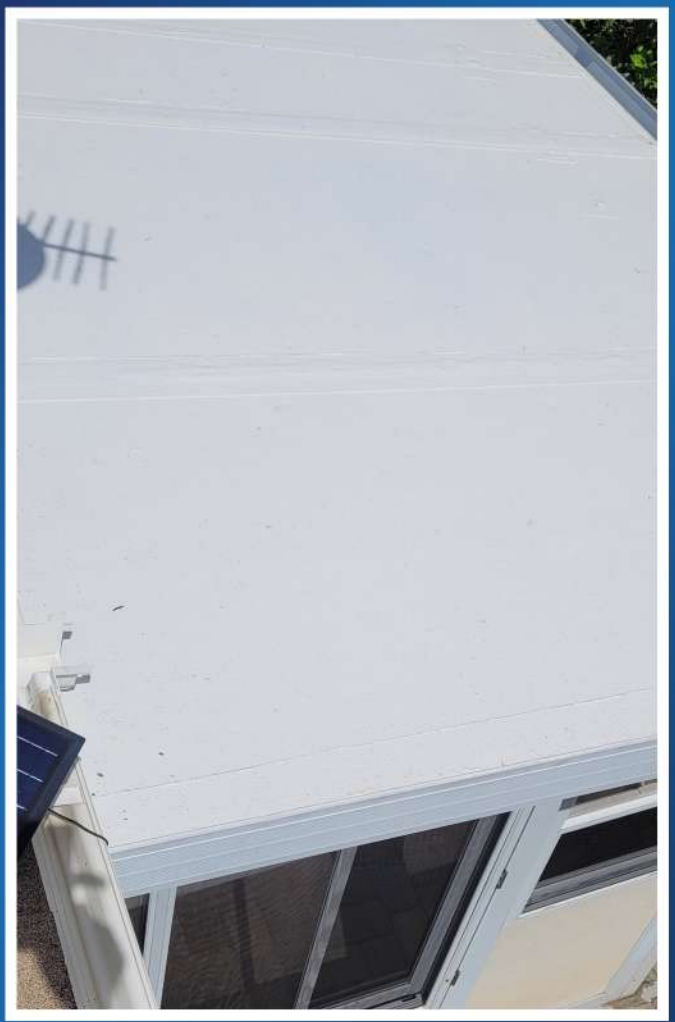
Liquid Butyl Rubber is effective for protecting concrete pipe against salt-water corrosion. It can tolerate higher temperatures, exposure to strong sun, and allow 2.5 times higher solids than liquid Neoprene coatings.

MANUAL APPLICATION PROCEDURES

Liquid Butyl Rubber can be applied directly on many different surfaces with solid, stable, nonporous and uniform surfaces like flat roofs. For most surfaces, primers are not necessary. Types of surfaces that can be coated with Liquid Butyl Rubber EPDM are:

EPDM Rubber Sheets / Roofs-Galvanized Steel Panels / Roofs -Non-Polished Aluminum Sheets / Roofs -Steel Plates (Painted, Unfinished, Light Corrosion) Fiberglass Panels / Non-porous / Steel Troweled Concrete Surfaces / Masonry

A though, Liquid Butyl Rubber EPDM can be applied using airless spray equipment, most of our clients only consider spraying if the surface area exceeds 10,000 sq ft. Otherwise, the recommended application is a brush or roller. For corrugated roofs we have special rollers to fit the profile of your roof. In addition, we offer spreaders for larger projects.



Surface Preparations

After inspecting and repairing structural faults and under-skin corrosion, any silicone type of caulking on the roof surface should be removed. Silicone is not compatible with Liquid Butyl Rubber

Any holes, gaps, seams, or tears (of more than 1/16" wide) must be repaired or reinforced. Any potential weak areas must be reinforced. Holes and low spots must be filled with non-silicone caulking or epoxies to "plug leaks" and level "low spots." Before coating, clean and wash the surface with detergent (soap) and water, ensuring that surface is free of oils, dirt, debris, and flaking paints.

If the surface has fungus, molds, algae, or other biologicals, 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 before applying Liquid Butyl Rubber. Unwanted splatters and drippings can be removed with rags and xylene or mineral spirits when wet (within 20 minutes after application). Use a short nap roller and a chip brush to apply Liquid Butyl Rubber manually. Use a brush for hard to reach areas.

Broadcast and spread using a short nap roller to release trapped air to evenly distribute the Liquid Butyl Rubber. Using a squeegee with a long mop-type handle and roller, will allow you to apply the product standing and not on your knees.

It is important to apply an even distribution of Liquid Butyl Rubber 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 of 20 mils.

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) Apply Liquid Butyl 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-mil 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 50 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 Butyl Liquid Rubber before, apply it in several premeasured sections. The first section will give you a feel for the product and how quickly you are able to apply it. You can then do larger areas in subsequent sections.

We recommend you apply two gallons at first, over a pre-measured 100-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 four hours. Plan your work sections within a four hour time frame or less.

Reinforce seams, cracks, and defects with 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 Butyl 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.

One component thermoset. Non-thermoplastic materials, regardless of shape, can now be coated with Liquid Butyl Rubber as protection against corrosion or chemical attacks. The coating can be applied by spray, dip, or flow methods.

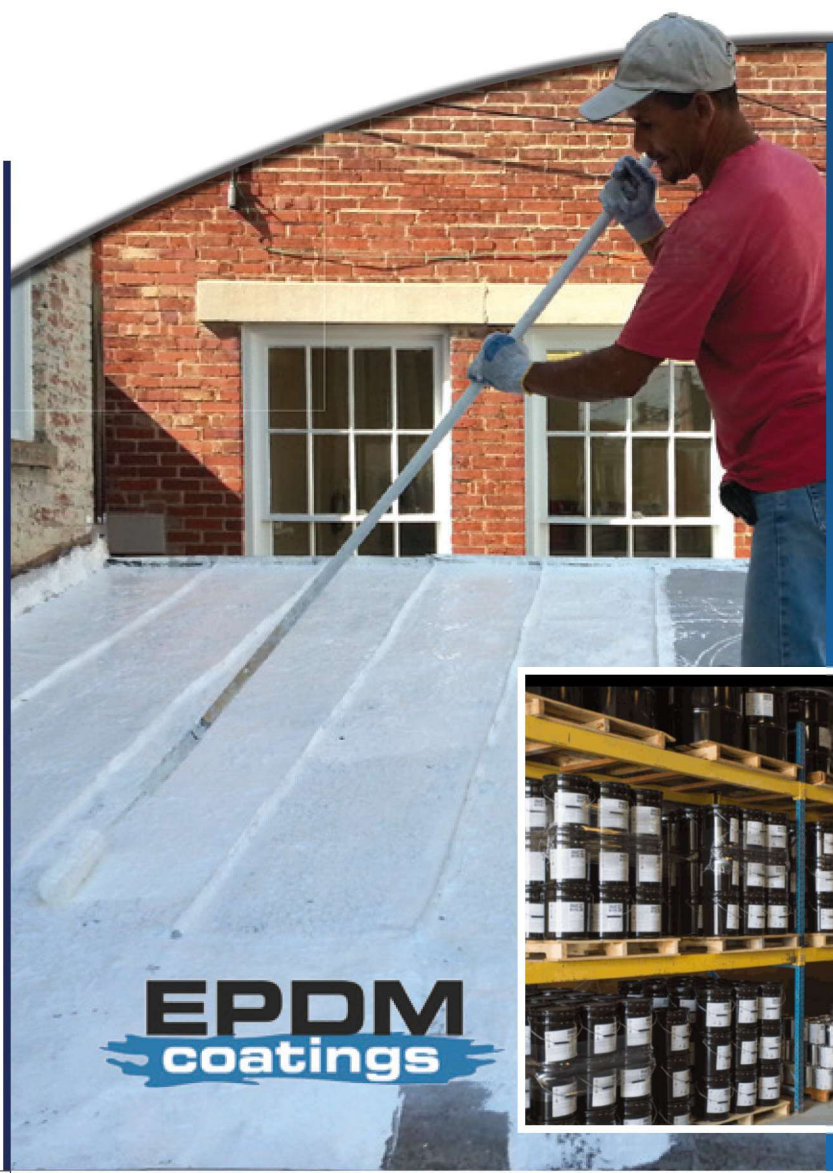
APPLICATION PROCEDURES

1) Using a drill and mixer shaft, mix the product for approximately 3-4 minutes. In the event you have to stop the job for the day, simply put the lid on securely so air will not get in. This will stop the curing process.

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 one edge is attached to the roof and the rest is formed into shape of a gutter.

3) We suggest chalking off the roof into 20X10 ft. areas or 200 sq ft. When you are done applying the product in that area you should have used up a four gallon pail. Pour some material onto the roof. Follow with the roller to even out the wet film. The product will self-level. Use a brush around vents, AC' pipes, 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.



EPDM coatings

To Stop Leaks

1. Use a wire brush to clean edge-strip, seams and flashings. Use sharp edged spatula to remove cracked or brittle caulk. Rough up smooth surfaces with sand paper.
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 Butyl Rubber® with a brush on 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 with release film attached.
3. Remove film. Cut poly fabric to fit and press into Butyl Tape.
4. Coat over fabric with Liquid Butyl Rubber.
5. For areas around the perimeter, use Butyl Caulk.

To Repair Rips and Tears

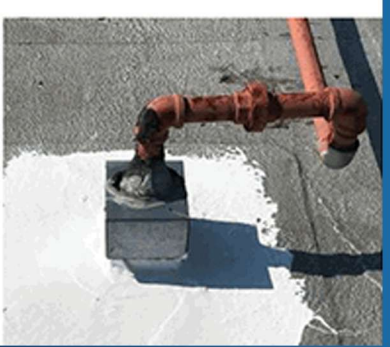
1. Trim ragged edges of damage.
2. Cut new aluminum plate to overlap damaged area by 3".
3. Drill rivet holes 1/2" from edge 1-"1/2" apart.
4. Remove plate and apply rubber over holes.
5. Pop rivet plate and coat with Liquid Butyl Rubber®.

Technical Data

Coverage Rate		50 sf/gal
Flashpoint		101°F.
Weight (lb./gal.)		8.5
Solids (% by Weight)		50.0±1%
Viscosity @ 78		2900 cps.
Drying Time		2-4 hours
Elongation	ASTM-D-412	500%
Tensile Strength	ASTM-D-412	1520 PSI
Permeance (10 mils)	ASTM-E-96	0.166 perms
Fungi Resistance	ASTM G 21	0 (Pass)
Water Swell	ASTM D 471	0%
Weathering	ASTM 4798	Pass
Low Temp. Flex	ASTM D 522	Pass
Wind Driven Rain	TT-C-555B	Pass

WET ADHESION (ASTM C 794/D 903)

Metal	Pass
SBS Mod. Bit	Pass
APP Mod. Bit	Pass
Smooth BUR	Pass
EPDM	Pass
TPO	Pass
Hypalon	Pass
SPUF (Foam)	Pass



TESTIMONIALS

Resort Property (Mexico)
Project Overview:

Project involved seven buildings of which six were similar and one slightly larger. Roofs were approx. 5,500 square feet. Total square footage of the project was 50,000. Buildings were eight years old and due to existing single ply torch on failure and substrate failure, all roofs were removed and new concrete poured to accept Butyl product. Proper slopes were incorporated in new roof design, including proper drainage and scupper installations. Project was located 30 miles North Of Manzanillo, Mexico on the west coast. Units were on the ocean and subjected to high humidity, sea salt and heavy rains in July - October. A six man crew was required as they worked in pairs to complete tasks

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"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 18 years from now it will still be worry free. It is actually quite amazing when it fully dried. It looks like the Liquid Butyl Rubber was part of the manufacturing process when the metal was originally 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

Thank you for your product. It turned out to be all you said it was and more. Now I am thinking about using on my new deck on my cabin in the Sequia mountain range.

These pictures (attached files) show you the 355 sq. ft. deck before application and after. The deck was covered with role roofing (which leaked). You can see that I applied a few gallons of cheap white elastomeric patch mostly to level it out where the roofing overlapped and then top-coated it with your Liquid Butyl Rubber. More than satisfied with the outcome and the ease of use. This house is nestled on a hillside which is approximately 15 miles inland from the ocean.

Terry B

ROOF PROTECT

Cleaner / Degreaser




PRECAUTIONARY STATEMENTS:

Keep container tightly closed. Avoid breathing in vapors. Do not get in eyes, on skin or clothing. Wash hands thoroughly after handling. Use personal protective equipment as required.

HAZARD STATEMENTS:

Harmful if swallowed. Causes severe skin burns and eye damage. May cause respiratory irritation.

FIRST AID:

Eyes: Flush with water for at least 15 minutes, call a physician immediately.

Skin: Wash well with water. Launder clothing before reuse.

Inhalation: Remove victim to fresh air.

Ingestion: Do not induce vomiting. Give several glasses of water. Never give anything orally to an unconscious person. Seek immediate medical attention.

DOT: UN1824 Sodium Hydroxide Solution, 8, PGII. Corrosive

Properly prepare your roofing membrane for our coating with our Roof Protect Cleaner/Degreaser. This eco-friendly, biodegradable cleaner is designed in complement with the EPDM Coatings Family of products to give you the best results out of your roof coating application. Applied prior to power washing and/or brush washing, Roof Protect emulsifies contaminants and provides improved surface preparation by effectively removing oil, grease, mildew, dirt, and other soils from your roofing membrane.

ROOF PROTECT DIRECTIONS FOR USE:

- For heavy deposits and degreasing: Use a 1:1 to 1:5 ratio with water and apply. Brush if neces sary and rinse with a minimum of 2000 PSI.
- For normal cleaning of roof surfaces: Use 1:40 with water. Apply by spraying dilute solution at a rate of 400 to 500 sf/gal. Allow solution to saturate surface for a minimum of 20 minutes prior to power washing. Power wash with a minimum of 2000 PSI, beginning at the lowest point on the roof and work upwards. Once highest point is reached, work down again with a final rinse to remove any excess contaminants from the roof.
- Safety Measures: Use protective glasses and clothing when using this product. Do not use on soft painted surfaces at a dilution rate less than 1:30.
- See SDS and Roof Protect specification sheet for precautions and additional information.

What we have improved on
RV ROOF MAGIC

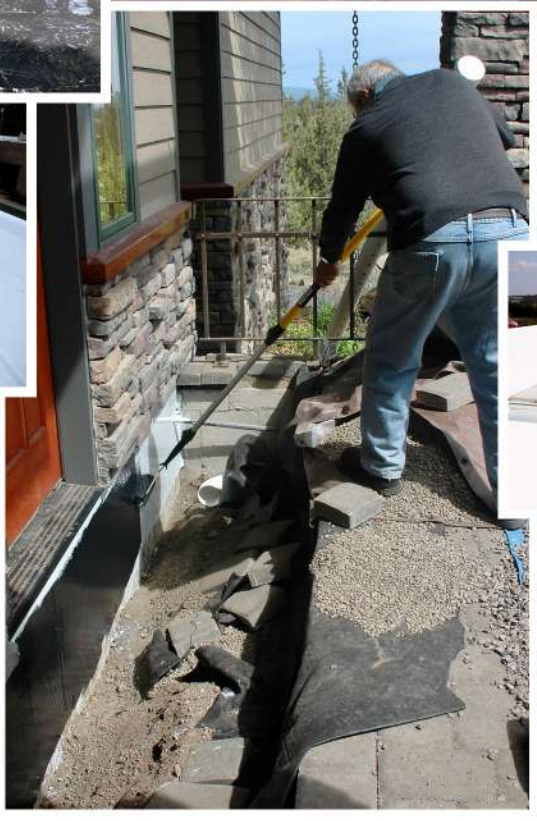
1) Our Solvent is incorporated into the product. No need to mix a separate bottle of catalyst.
2) We have added a mildewcide to deter mold and mildew from growing on your roof.
3) Tensile strength is now 1,200 psi vs our original 860 psi.
4) Elongation has increased to 500% vs 200%.
5) Dry times are now down to 3-5 hours depending on temperature.
6.) Shelf life of the product is five years.

What we have improved on
LIQUID BUTYL RUBBER

1) Our Solvent is incorporated into the product. No need to mix a separate bottle of catalyst.
2) NOW no primer is needed for tar or asphalt roof types
3) It comes standard in 11 colors!
4) All ASTM testing has been completed on the product.
5) We have added a mildewcide to deter mold and mildew from growing on your roof.
6) Tensile strength is now 1,500 psi vs our original 860 psi.
7) Elongation has increased to 500% vs 200%.
8) Dry times are now down to 3-5 hours depending on temperature.
9) Shelf life of the product is five years.


AFTER

BEFORE



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

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LIQUID BUTYL RUBBER

25-Year History of SUCCESS

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