Supplies Needed

Quart and Gallon containers
3/8 inch electric drill
Quart/Gallon mixing shaft
Short nap roller (6 inch)
brush
rubber edged squeegee
masking tape
paint thinner for clean-up

Four and Five gallon pails
1/2 inch electric drill
Pail mixing shaft
Short nap roller (6 inch)
brush
rubber edged squeegee
masking tape
paint thinner for clean-up

Surface Prep

On EPDM Sheet roofs
Surface needs to be clean, dry and structurally sound. Oil or wax must be completely removed with solvent. Remove loose portions of existing coatings and brittle caulk with scraper and wire brush. Whatever still has good adhesion may remain to be recoated. Roof cements should be removed and replaced with butyl caulk where necessary. Repair torn rubber with adhesive Butyl Tape. A rubber patch may be applied over torn area if desired. Remove chalk from white rubber membrane by brushing with a detergent solution followed by a water rinse or working surface with a stiff brush. For RV's you can apply masking tape to perimeter of roof or wherever straight edges are desired. Tape can also act as catch basin for sags if only one edge is attached to roof and rest is formed into shape of a gutter. Masking tape should be left on until rubber is solid enough to be touched. Work from front to rear.

On Metal Roofs
Surface needs to be clean, dry and structurally sound. Fasten loose areas with adhesive (contact cement) or pop rivets. Rusty or pitted metal should be wire brushed to remove loose oxide. Tightly adhering corrosion may be directly coated. Asphalt based aluminum coatings should be removed as much as possible by wire brush or abrasive disc. Smooth metal or plastic surfaces should be roughed up to improve adhesion of ***EPDM Liquid Rubber®****. A deglossing solvent may work on some plastics.*

Manual Application procedure for flat roofs
After thoroughly mixing Rubber using drill and mixer shaft, incorporate supplied catalyst, following label directions.
Pour some material on roof and use squeegee to distribute over surface.
Follow with roller to even out the wet film. Product will self-level when sufficient material l been applied. Brush and roller marks will disappear when sufficient material is applied.

Spray Application
Liquid Rubber can be sprayed using airless equipment. Choosing the proper equipment, however is key to achieving satisfactory results. The fluid characteristics of Liquid Rubber produce considerable pressure drop in the hose so pump size hose diameter and total length of hose must be chosen carefully in order to achieve satisfactory results.

The following recommendation is for ***Graco*** equipment. Other manufacturers with comparable pumps may also be used.

Liquid Rubber must be thinned with solvent to achieve a sprayable viscosity. See recommendations below.

Equipment capable of spraying Liquid Rubber

Pump Model	Max. Pressure	Fluid Flow	Hose ID	Max. Hose Length
Graco GH733	3500 psi	3.0 gpm	1/2 inch	150 feet
Graco GH3640 Roof Rig	36000psi	3.8 gpm	1/2 inch	150 feet

Gun Should be rated for spraying mastics. A 30-40 inch tip extension is recommended.

Tip Size .017 to .021 with a 12 inch fan width

- **Note: Do not use a "whip" between hose and gun. This reduces flow and pressure which results in poor atomization.**

Thinning Liquid Rubber

The "as shipped" viscosity of Liquid Rubber is 34-37,000 cp which is too high for spraying. By adding one gallon of Xylene Solvent to a 5 gallon pail the viscosity drops to 10,000 cp at 75° F. More solvent may have to be added at lower temperatures.

The spray atomization can be improved using a smaller tip size or adding more solvent to reduce viscosity.

Wash solvent from previous pump cleaning can be used for thinning after it is strained to remove dirt.

Fasteners

Caulking around fasteners is usually not necessary. The physical properties of the EPDM Liquid Rubber will produce a longer lasting seal around fasteners than caulks will because the latter will become brittle with age, causing loss of adhesion and cracking.

It is good practice to brush the rubber into the fasteners after spray application to ensure complete coverage. This procedure will be less time consuming than caulking.

Fabric Reinforcing of Seams and overlaps

Tight overlaps and standing seam joints do not need to be reinforced.

Overlaps with greater than 1/16” or corroded edges should receive fabric reinforcing.

- Apply a light coat of Liquid Rubber.

- Center the fabric on the overlap and roll it out taking care not to create wrinkles.
- Press the fabric down with a squeegee or wide spatula.
- Spray a full coat of Liquid Rubber to seal top surface of the fabric.
- Roll back over with a short nap roller to ensure complete surface coverage.

Overspray

Overspray can travel a long way when carried by a breeze. Vehicles should not be parked downwind near the work area. Overspray landing on a vehicle can be easily removed with Mineral Spirits even after 24 hours. Thereafter, stronger solvents such as Xylene will be effective in removing the rubber but may dull some finishes.

Rain Showers or Freezing Temperatures

Unexpected rain showers after application may affect the surface appearance but will not wash the material off the roof. Temperature drops below freezing will arrest the cure but will not damage the Liquid Rubber. The cure reaction will resume again whenever adequate temperature returns.

Cleaning Equipment

A three stage flushing is recommended.

1. Add Xylene on top of the remaining rubber in pail and continue pumping until Xylene reaches gun. Reduce pump pressure; add 2-3 gallons of Xylene to pail and spray into pail. with tip removed for about 30 seconds. Then remove gun and recirculate solvent for 3-4 minutes. Tilt pump out of solvent and let air pressure purge the material in hose.
2. Put clean pail with clean Xylene under pump and circulate at low pump pressure 3-4 minutes. Connect gun without tip for another short flush, then remove gun. Again tilt pump out of solvent, let air pressure purge the line.
3. Put another bucket with clean solvent under the pump and circulate for 3-4 minutes. The solvent should be a little stained by now. Connect gun with tip and spray about 10 seconds with rag over the tip.

The equipment is now ready for the next use. If work is to continue another day the solvent can remain in the line if gun is attached. Clean up solvent should be strained and used for thinning as application continues.