



# Our Lady of Perpetual Help Elementary School

LIQUID EPDM SUPERCOAT APPLICATION

David Marut | Case Study | January 1, 2014

**Case Study:** Application of **Commercial / Industrial Super Coat Liquid EPDM** Roof System over the existing 10,000 sq, ft, built up rock roof at OLPH Elementary School.

**Location:** Our Lady of Perpetual Help Elementary School, Selma, Tx.

**Problem:** The existing roof at OLPH Elementary School is a built up (BUR) rock ballasted roof. The roof deck has a reverse angle pitch on the ends of the building designed to funnel water to the drains located towards the center of the roof.

This design resulted in the formation of numerous ponding areas across the roof surface. Over time the water found its way into the building. Multiple attempts were made to identify and patch the leaking areas. These attempts were unsuccessful.

Solutions were sought from local roofing companies. The answer from these companies was the same. A full tear off of the existing system and total roof replacement.

A full tear off and total roof replacement is a very expensive and invasive solution. The cost exceeded the budget and the project was put on hold.

**Solution:** Install the fluid applied **Commercial / Industrial Super Coat Liquid EPDM** Roof system by ProGuard directly on top of the existing modified roof membrane. Provide client with a 10 year warranty that covers ponding water.

- 1.) Spud/Remove all the rocks, both loose and embedded from the existing roof leaving the modified membrane in place.
- 2.) Apply ProGuard 1519 Ground Rubber flexible epoxy Foundation Primer directly to the surface of the modified sheet, curbs and penetrations.
- 3.) Apply ProGuard Commercial / Industrial **Super Coat Liquid EPDM** Rubber per manufacturer's specification to the entire primed surface.

This solution is cost effective and non-invasive. It provides a seamless, monolithic, fully adhered, fluid applied membrane of EPDM Rubber.

Existing Built up Rock Roof Prior to Application of the EPDM Super Coat



Spud/Removal of all loose and embedded rock



ProGuard 1519 Ground Rubber Foundation Primer (black) has been applied to the entire roof surface including all curbs and penetration points.

**Liquid EPDM Super Coat** being applied to specified mil thickness over top



Seamless, monolithic, fluid applied membrane of **Liquid EPDM Rubber**





## Summary

Our Lady of Perpetual Help Church needed a cost effective solution to the problem of water penetration through the roof deck and into the classrooms of their Elementary School. There were many attempts to locate and spot treat the areas where water was thought to be entering the building. All attempts failed.

The root of the problem stemmed from the original roof design of the building which funnels water towards centrally located drains. Additionally, general settlement of the building had slightly lowered the level of the roof deck. These two conditions contributed to the accumulation of ponding water across the roof surface. This water in turn found its way into the interior.

The cost for a complete tear off and re-roof far exceeded the school's budget. Upon examination, the existing felt membrane was found to be in relatively good shape. It was determined that the rocks could be spud/removed and the **Commercial / Industrial Super Coat Liquid EPDM Rubber Roof** system applied directly to the surface of the felt membrane.

**Liquid EPDM Super Coat** was developed specifically to meet the demanding requirements of commercial and industrial applications. It has superior adhesion, greater tensile strength, faster cure time and is a brighter white than the original Liquid EPDM. **Super Coat** is not a paint. It is the same rubber material that the EPDM membranes are made from. It provides all the same outstanding characteristics that make EPDM rubber the best roofing material.

Additionally, **Liquid EPDM Super Coat** Rubber membrane is hydrophobic. It is prized for its ability to repel water and withstand extremes of temperature from -60F to +360F. It comes with a manufacturer's standard 10 year warranty that includes ponding water

It is flexible and will move with the expansion/contraction of the substrate. It is cost effective and easily maintained. It cures to a tough and durable rubber membrane, outstanding for use in both commercial and industrial roofing applications of all kinds.

The foundation primer applied directly to the felt membrane is the world's only flexible epoxy primer. It is an incredibly strong material with outstanding adhesion.

It forms a tough, flexible water barrier. Used together in the application, these materials will eliminate the back and forth flow of moisture that can compromise other roof coatings such as acrylic elastomeric.

Another key advantage to **Liquid EPDM Super Coat** is the fact that as a fluid applied system it is **seamless**. This eliminates the main problem of all traditional roofing membranes like TPO, which is leakage over time through seamed areas and through caulk joints sealing penetration points.

The conditions at the time of the application were less than ideal. Temperatures fluctuated between the mid 40's and low to mid 50's. The lower temperatures did not have any negative affect on the material.

Had this been an application using a water based paint system, the installation would have had to have been delayed until better weather arrived. However, in this case, the material is solvent based and therefore the application continued in spite of the weather conditions.

The **Liquid EPDM Super Coat** roof system from **ProGuard Coatings** is the perfect choice for almost any roof recovery application.

**Contractor:** Tin Star Roofing, Bracken, Tx.

**Contact:** Cody Johnson (210) 325-9594 or (210) 655-0000

For further information regarding this system and other high performance industrial coatings please contact the following:

**Armadillo Industrial Coatings**

National Distributor for Commercial and Industrial Liquid EPDM SuperCoat

**Armadillo Industrial Coatings (210) 722-7689**

**[Armadillosales5@gmail.com](mailto:Armadillosales5@gmail.com)**



