

Assembly Line Keeps Rolling as Instant-Set Liquid Membrane Renews Automotive Plant Roof, Defers Costly Replacement

Challenge: Restore roof integrity while maintaining facility operations to defer disruptive and costly replacement

Solution: Ertech™ 2030 primer, Ertech™ 3035 membrane, Ertech™ 3036 adhesive, and white roofing granules

Project Details

Location	Tennessee, USA
Project Type	Commercial Built-Up Roof Restoration
Completion	Multiple Areas, between 2018 and 2023
Products Used	Ertech™ 2030 , Ertech™ 3035 , Ertech™ 3036

Overview

An automotive assembly plant faced rising maintenance costs from an aging, leaking modified bitumen roof. UV degradation and loose aggregate demanded attention, but tight production schedules left little room for maintenance disruptions. The owner needed to stabilize the roof until it could accommodate the downtime for a full roof tear-off and replacement.



Before restoration – Aged modified bitumen roof with multiple penetrations

Solution: Ertech Roof Restoration System

To extend the life of the roof, the project team specified an elastomeric restoration system applied over the existing tar-and-gravel built-up roof (BUR). The system consisted of 3 layers: Ertech 2030 primer, Ertech 3035 membrane, and Ertech 3036 adhesive into which white roofing granules were broadcast.

Each layer served a critical role in the system's performance.

1. Ertech 2030 Primer locked in exposed gravel, filled valleys between protruding rocks, and sealed the porous surface to prevent outgassing that can form blisters in the new membrane.
2. Ertech 3035 Membrane formed a new waterproof barrier. Its time-saving spray-applied, instant-set formula may be applied from 20 to 125 mils with no additional cure time.
3. Ertech 3036 Adhesive, an evaporative cure version of the membrane formula, adhered to the membrane and roofing granules with sufficient open time for granule distribution.

The restoration strategy allowed the owner to:

- **Eliminate recurring leaks** and secure vulnerable details.
- **Save capital** by deferring a complete roof replacement.
- **Maintain full production** with zero operational downtime.

Before coating, the team confirmed that the roof deck and insulation were suitable for restoration, removed loose aggregate where required, and verified that existing rooftop equipment could remain operational during the project.

Execution

The project began with a comprehensive roof assessment, mapping curbs, penetrations, and defects, such as blisters, open seams, and ponding water. Crews coordinated closely with facility management throughout the project, sequencing work zones to protect shipping and production schedules.

From there, the team executed the plan step by step:

1. Vacuum loose aggregate and spud the roof surface
2. Repair seams, penetrations, flashing, and damage
3. Power-broom the roof surface to remove dust and debris
4. Spray Ertech 2030 primer over prepared tar-and-gravel roof
5. Co-spray Ertech 3035 instant-set elastomeric membrane
6. Spray Ertech 3036 granule adhesive
7. Broadcast white roof granules

The project concluded with a final quality control inspection to verify proper coverage, adhesion, and overall waterproofing performance.

Results

After repairing existing defects and reinforcing critical penetration details, the new membrane created a seamless, waterproof barrier that halted the recurring leaks that would otherwise threaten production, inventory, and equipment below.

The facility achieved three major milestones by choosing restoration over a full tear-off:

1. **Zero Operational Disruption:** Crews completed the project around active production schedules and facility access requirements.
2. **Immediate Energy Savings:** The reflective white roofing granules reduced heat absorption, lowering cooling costs on the aging roof structure.
3. **Extended Roof Life:** The durable system added years of weather and UV protection to the building envelope.

Conclusion

For facilities with a structurally sound, low slope tar-and-gravel built-up roof, a properly specified and installed Ertech Roof Restoration System seals leaks, eliminates surface defects, and improves energy efficiency. By extending the life of the existing roof, this noninvasive restoration system minimizes disruption to operations and defers investment in a complete roof tear-off and replacement.

For more information about Ertech Roof Restoration Systems or to consult with one of our roof restoration experts, send your questions to info@armor-inc.com.



Elastomeric Membrane – Ertech 3035 prior to roofing granule application



Finished Restoration – White roofing granules over Ertech 3036 adhesive