



IMPERMITEK

Advanced Seamless Technologies

GAS STATION ROOFING

Case Study

Project Type:

New Roof Application

System Installed:

IR-26 Polymer Resin

Project Size:

3,200 Square Feet

Sector:

Commercial

Location:

Murtaugh, Idaho

Authorized Installer:

ExterPro



PROJECT INTRODUCTION



A newly constructed gas station in Murtaugh, Idaho required a complete warm-roof assembly that could be installed efficiently, protect the building quickly, and deliver dependable long-term waterproofing in a demanding commercial environment. The 3,200-square-foot roof serves a facility with a commercial kitchen and a high concentration of rooftop mechanical equipment, making both system performance and detailing critical to the success of the project.

Impermitek Authorized Contractor Exterpro was awarded the roofing scope and selected a full IR-26 Polymer Resin Membrane assembly. The warm-roof build-up began with a vapor barrier installed directly to the wood roof deck, followed by rigid polyisocyanurate insulation and 1/4-inch ZS2 magnesium oxide cement cover board. The ZS2 cover board provided a smooth, stable substrate for the final waterproofing system. Exterpro then installed the fully reinforced IR-26 liquid-applied membrane to create a continuous waterproof envelope across the field of the roof and around its many critical details.

The project demonstrates the value of combining a well-designed insulated roof assembly with Impermitek's seamless, cold-applied liquid membrane technology. IR-26 is designed for new construction and complex waterproofing applications where a fully bonded membrane, rapid installation, and reliable detailing can help reduce risk and keep construction moving.

CHALLENGES

Weather and scheduling were major considerations from the outset. Construction took place during Idaho's rainy season, and the client needed the building dried in as quickly as possible so interior trades could continue without unnecessary exposure to moisture. The roofing contractor therefore needed a system and installation sequence that could take advantage of available weather windows, cure efficiently, and support an aggressive construction schedule.

The roof geometry also created a high level of detailing. Multiple mechanical units, curbs, pipes, drains, penetrations, flashings, terminations, changes in plane, and perimeter conditions all had to be incorporated into one continuous waterproofing assembly. On roofs with this many interruptions, conventional sheet membranes can require numerous cuts, laps, welds, and transitions. Every additional seam introduces another location that must be formed and sealed correctly.



The gas station's commercial kitchen added another important performance requirement. The roof system needed to be appropriate for an environment where airborne cooking residues and grease may be present around exhaust equipment. A durable membrane with strong resistance to water, weathering, and chemicals was therefore an important part of the system selection.

Finally, the project was new construction, so jobsite safety and coordination were essential. With multiple trades working in and around the building, the client benefited from a roofing technology that could be installed without open flame or hot works while still providing a robust, warranty-backed waterproofing solution.

THE IMPERMITEK SOLUTION

Impermitek and the IR-26 Polymer Resin Membrane were selected to meet the combined demands of weather exposure, construction sequencing, complex rooftop detailing, commercial use, and long-term waterproofing performance. The system's grease resistance was also an important consideration for the client because the gas station includes a commercial kitchen, making IR-26 a strong fit for an environment where the roof could be exposed to grease and other service-related contaminants.

This performance characteristic was one of the key reasons the client chose the Impermitek system. Working from the wood roof deck upward, Exterpro first installed the vapor barrier, followed by rigid polyisocyanurate insulation and the ZS2 magnesium oxide cement cover board to complete the warm-roof substrate.

Once the roof was prepared, Exterpro focused first on the most critical waterproofing details. Flashings, penetrations, drains, curbs, perimeter transitions, terminations, and changes in plane were reinforced and waterproofed before the field membrane was completed.





This detail-first approach allowed the contractor to establish continuity at the locations most vulnerable to water entry.

IR-26 is installed as a cold-applied liquid system and is reinforced with continuous polyester reinforcement. Because the membrane is formed in place, it can conform closely to irregular shapes and complex transitions without relying on a network of prefabricated sheet seams and welds. This made it particularly effective around the large number of mechanical penetrations and rooftop details on the gas station. The completed system forms a fully bonded, seamless waterproofing layer designed to provide durable protection while accommodating normal building movement.

After the details were completed, Exterpro installed the fully reinforced IR-26 membrane across the remaining roof area, tying the field application continuously into the previously completed flashings and penetrations. The result was a single integrated waterproofing system across the entire 3,200-square-foot roof.

IR-26's fast-curing resin technology was an important advantage during the rainy season, helping the contractor make efficient use of workable weather windows and support the project's construction timeline. Its cold-applied installation also eliminated the need for flame-based application methods, reducing hot-work risk on an active construction site. In addition, Impermitek's seamless liquid-applied technology is engineered for long-term durability and resistance to water, weather, UV exposure, and demanding chemical environments - valuable characteristics for a commercial roof serving a gas station and kitchen operation.

The completed warm-roof assembly delivered the combination the project required: insulation, substrate stability, seamless waterproofing, simplified detailing, rapid installation, and warranty-backed confidence. Through the workmanship of Impermitek Authorized Contractor Exterpro and the versatility of the IR-26 Polymer Resin Membrane, the new Murtaugh gas station was provided with a fully waterproof roof assembly designed to protect the building and support its long-term commercial operation.