

**FleeceBACK<sup>®</sup> RL<sup>™</sup> EPDM**  
Roofing Systems

CASE STUDY

**Carlisle's FleeceBACK RL EPDM  
Provides Speedy Application in a Cold Climate**



**JOB PROFILE**

**PROJECT LOCATION:**

- » Klamath Falls, OR

**BUILDING:**

- » iQor Customer Service Call Center

**PROJECT SIZE:**

- » 42,000 square feet

**CONTRACTOR:**

- » JAM Roofing

**ROOFING SYSTEM:**

- » Carlisle FleeceBACK RapidLock (RL) EPDM
- » 2 ¼" EPS Flute Fill Insulation
- » ½" SecurShield HD RL Coverboard

Roofing in extreme cold temperatures is challenging, if not absolutely impossible. Weather conditions, moisture accumulation, temperature restrictions on material application, and the health and wellbeing of contractors—to name just a few considerations—can make wintertime roofing applications expensive and compromise a rooftop's potential for quality performance.

When the iQor customer service call center headquartered in Klamath Falls, Oregon, was in desperate need of reroofing, there was no time to wait for winter to pass. After experiencing years of roof leakage, the iQor team was considering relocating its headquarters, a decision which would have devastated the local economy. The local building owner, in collaboration with contractor JAM Roofing, chose to reroof the 42,000-square-foot rooftop as quickly as possible.

Considering the time of year, the required speed of installation, the regional climate, and the 4,200-foot elevation above sea level, JAM Roofing chose to use a new, innovative roofing system manufactured by Carlisle SynTec Systems: FleeceBACK RapidLock (RL) EPDM.



This revolutionary membrane attachment system creates a fully adhered EPDM roofing system without the use of adhesives. Featuring VELCRO® Brand Securable Solutions combined with Carlisle's 115-mil FleeceBACK RL EPDM membrane, this innovative system provides the performance of a traditionally adhered system with the additional benefit of 80% labor savings compared to applications that use traditional bonding adhesives. Because it is an adhesive-less system, Carlisle's FleeceBACK RL EPDM makes winter installations possible, eliminating the concern of temperature restrictions.

Featuring Carlisle's FleeceBACK RL EPDM membrane, this cutting-edge roofing assembly not only provided this project with the temperature flexibility needed for installation, it also provided industry-leading wind uplift performance and supreme resistance to punctures and hail. FleeceBACK RL EPDM membranes are extremely tough and provide long-term durability, with warranty coverage of up to 20 years. Additionally, these membranes are manufactured with three-inch Factory-Applied Tape (FAT), which ensures consistent, high-quality seams on the rooftop and reduces the potential for leakage.





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When they arrived onsite at the iQor building, the installation crew from JAM Roofing was in for a surprise. The existing roofing system, which had been installed with the construction of the building in 1995, had been poorly patched beyond recognition. It was no surprise that the building's occupants were considering relocation after years of exposure to this leakage.

This installation was unique as it had to be constructed from the top down to prevent any snow or ice from building up against the rooftop insulation and coverboard or seeping into the crevices of the existing metal roof. The first step in this application was to install Carlisle's two-and-a-quarter-inch-thick EPS Flute Fill insulation, followed by a half-inch-thick SecurShield® HD RL coverboard. Both insulation and coverboard were mechanically attached to the existing metal roof using 16 fasteners per board. This unique combination of insulation and coverboard would help to preserve the building's thermal efficiency during the region's cold winters.

The installation crew laid the flute-fill insulation securely against the existing metal roof, followed by the SecurShield HD RL coverboard, and mechanically fastened both layers. Once mechanical attachment was completed, the crew rolled out the 115-mil-thick FleeceBACK EDPM RL membranes in 10' x 50' and 10' x 100' rolls, removed the release film, and broomed and rolled the membrane into place with a 150-pound roller. The team utilized a unique method of removing the membrane release film without folding the EPDM over, which enabled them to install up to 100 squares per day with a five-person crew.

Despite the harsh weather conditions, the crew from JAM was able to install this rooftop in record time with half the crew they would typically utilize on a project this size. "Even though we were fighting the weather, we were able to install 60 squares per day with a five-man crew," said Mark Unger of JAM Roofing. "On days with good weather, we could install upwards of 100 squares per day with that manpower."



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“The **lack of VOCs** was imperative on this project as the building remained **occupied throughout the construction process.**”

The ease of this installation was further aided by the fact that this system is free of the VOCs and odors that often accompany traditional bonding adhesives. The lack of VOCs was imperative on this project as the building remained occupied throughout the construction process. While the use of traditional adhesives can cause disruption to building occupants, Carlisle's FleeceBACK RL system enables occupants to continue with life as usual, minimizing both disruption and odors.

In addition to providing easy installation and long-term rooftop performance, this innovative roofing system had yet one more unique benefit for the iQor call center. The town of Klamath Falls typically receives a minimum of three to four feet of snowfall each year. This means that the snow falling on this rooftop must

be removed several times each winter. Carlisle's FleeceBACK RL EPDM system will make snow removal and rooftop maintenance much easier in comparison to other roof systems because the dark-colored EPDM membrane with underlying insulation will warm up more quickly than the underlying metal, causing the snow to melt more quickly.

The combination of skilled craftsmanship from the JAM Roofing team and long-term high-performance characteristics from Carlisle's FleeceBACK RL EPDM system met the unique requirements of this challenging rooftop. Because of this laborsaving rooftop application, iQor will now be able to continue operations, and fuel the Klamath Falls economy, without the distraction and discomfort of rooftop leakage.