

Sure-Flex™ PVC
Roofing Systems

CASE STUDY

**Re-roofing in the Heart of
San Francisco's 'Industrial City'**



JOB PROFILE

PROJECT LOCATIONS:
San Francisco, CA

CARLISLE APPLICATOR:
Legacy Roofing & Waterproofing

**MANUFACTURER'S
REPRESENTATIVE:**
Building Enclosure Solutions

ROOFING SYSTEM:

- » Sure-Flex PVC 60-mil
Light Gray Membrane
- » SecurShield® HD
Polyiso Insulation

SQUARE FOOTAGE:
32,000 SF

PROJECT DURATION:
Summer 2020 – Fall 2020

As one of the Bay Area's most experienced single-ply roofing contractors, Legacy Roofing & Waterproofing out of San Jose, California, was selected to re-roof a building located in the heart of San Francisco's 'Industrial City'. The building is located directly under the take-off path of the San Francisco International Airport and had an aging BUR cap sheet roof. There were plans to complete office renovations inside the building, so a new roof was critical to ensure the new office space would be well-protected.

Legacy Roofing & Waterproofing, a Carlisle Authorized Applicator since 2004, has provided services in roof replacement and maintenance, new construction, solar energy installation, and leak repairs since 2001. Upon initial inspection of the building's roof, the Legacy team recognized the need to completely tear off the existing BUR cap sheet so that a new plywood deck could be installed and earthquake bracing upgrades could be completed.

Once the new deck was in place, the Legacy team installed Carlisle's SecurShield HD Polyiso, a rigid roof insulation panel composed of a high-density, closed-cell polyisocyanurate foam core laminated to a premium-performance, coated glass facer (CGF). SecurShield HD is suitable for both new construction and re-roofing applications

CASE STUDY



RE-ROOFING IN THE HEART OF SAN FRANCISCO'S 'INDUSTRIAL CITY'

like this one and delivers an R-value of 2.5, which is significantly higher than cover boards made with other materials like wood fiber or gypsum. The high-density formulation of Carlisle's SecurShield HD Polyiso, which achieves Factory Mutual's (FM) severe hail rating, offers exceptional protection against hail, rooftop traffic, mold, and moisture.

Once the insulation was secured to the new roof deck, the Legacy crew began installing the membrane. Carlisle's Sure-Flex PVC is an advanced-formula, heat-weldable PVC thermoplastic membrane that meets ASTM D4434 Type IV requirements and is designed for long-term weatherability and performance. The physical properties of the membrane are enhanced by a tenacious, weft-inserted polyester fabric that is encapsulated by thick PVC-based top and bottom plies, making it highly resistant to punctures, UV, ozone, and oxidation. The smooth surface of the PVC membrane allows for a permanent weld, creating a consistent, watertight, monolithic roof assembly. The dark gray-colored bottom ply provides visual confirmation of a proper weld during the welding process.

Because of the building's proximity to the airport, Legacy Roofing suggested that Carlisle's light gray PVC membrane be used to complete this re-roofing project. Light gray PVC was chosen specifically to help mitigate overwhelming reflection toward outgoing aircraft as it gives off less of a glare than a white roofing membrane, while still meeting California's Title 24 compliance for reflectivity and energy efficiency. Additionally, the chemical resistance of PVC made it an ideal choice for a building located in close proximity to an airport and prone to jet fuel fallout exposure. Carlisle's Sure-Flex PVC membrane can provide superior resistance to these kinds of harsh chemicals, enhancing the roof's performance and service life.

Construction on this project began in the summer of 2020 and was completed that fall. The building was completely revamped into a high-end office space with spanning mahogany millwork and marble floors throughout, so a high-performing roof was critical to ensure long-term protection of the newly-renovated space. Carlisle's Sure-Flex PVC provides dependable protection and proven performance, making it a logical choice for this project.