



Flex FB With Elvaloy® Works Wonders By The Bay

The scenic San Francisco Bay is dominated by the beautiful Golden Gate Bridge. But roofs adjacent to this world-famous scenery are all subjected to salt air, highly variable moisture conditions, and virtually constant wind.

One such office building urgently needed replacement of its leaking built up flat roof. The building owner's representative had previous good experiences with Alcal Roofing, and Flex Membrane International, Inc.

Because of the nature of the neighborhood and to avoid disruptive odor, building owners specifically wanted to avoid exposure to asphalt fumes during reroofing. They decided to install a Flex FB adhered roofing system, based on DuPont Elvaloy® KEE ketone ethylene ester, applied with Flex water-based substrate adhesive. Involved parties had successfully used Flex thermoplastic single ply membranes in other similar applications, where fast and unobtrusive installation is a benefit.

Mike Cox, of the Techmarx Group, Moraga, California, inspected the roof with John Doyle, Flex's National Sales Manager, and prepared a specification. The project was a re-roof replacement of an existing BUR. The specification was reviewed and approved by the buildings owner's architect. All details approved for the project were according to Flex's specifications and recommendations.

Once the project was approved, the BUR was removed down to the lightweight concrete deck. A fiber glass base sheet was then attached to the lightweight deck with the use of Flex's CR-Base Sheet Fastener and Base Sheet Plate, manufactured by Olympic Fasteners.

Prior to the installation, Mike Gray, Technical Field Service Representative for Olympic Fasteners conducted fastener pull-out tests to determine which fasteners provided the greatest pull-out values. It was found that Flex CR-Base Sheet Fasteners



Flex single ply membranes are hot-air welded and provide seams as strong as the material itself. Flex membranes stay repairable indefinitely.

and Plates provided the highest values, along with the necessary corrosion resistant coating to meet Factory Mutual Approval Standard 4470. The base sheet was attached to the lightweight deck in accordance to Factory Mutual 1-90 Wind Uplift Nailing Pattern.

Flex FB Elvaloy® Adhered Roofing Membrane was then adhered to the base sheet with Flex Rubber Emulsion Substrate Adhesive. This unique water-based rubber emulsion adhesive complies with all environmental regulations, and allows easy and quick installation without asphalt fumes.

Results were superior.

Roofing Contractor Tom Halpin reports, “Flex roofing membranes go on easily, and the crew picks up the technique very quickly. With the product readily available, and solid technical support provided by Flex, I would not hesitate to recommend Flex single ply because we encountered no problems and received good results. From the building owners to the installation crews, everyone was highly satisfied with the end product.”

A unique reroofing solution

The key to Flex’s compatibility with asphalt and other petroleum-based compounds is the incorporation of DuPont Elvaloy® KEE ketone ethylene ester, which keeps the membrane in a workable thermoplastic state for an indefinite period of time. Elvaloy® KEE, unlike liquid plasticizers, does not migrate out of the membrane, keeping it flexible, workable and tough from the day the roof is installed.

The unique DuPont ingredient is highly resistant to UV exposure and temperature extremes. Additionally, Flex single ply roofing membranes are extraordinarily resistant to a wide range of chemicals, oils, and greases which can attack the integrity of some other roof types.

New options for reroofing flat BUR

The Flex FB system offers some major advantages for many applications, especially for reroofing flat BUR systems. The asphalt compatibility allows direct contact between the thermoplastic single ply and existing BUR. This means that a degraded flat BUR roof can be covered with Flex FB without tear-off. The result is a savings of tear-off labor cost, debris disposal costs, and a highly reliable and cost effective reroofing solution.

Easy application

Flex single ply roofing membranes stay flexible and workable indefinitely. The simple hot-air seaming technique requires no adhesives, primers, or solvents. Because hot-air welding creates a seamless molecular bond between Flex single ply layers, repairs can be made easily throughout the life of the roofing system.

Technically superior single ply

Flex single ply roofing membranes meet FM 1-90 requirements for wind uplift resistance, the equivalent of withstanding 100+ mph winds. This remarkable performance was documented, for example, by Flex installations that survived the devastation of Hurricane Andrew in Dade County, Florida in 1992.

Comprehensive support

Flex supplies hands-on support for specifiers and contractors for virtually every application. A full range of specialty materials and technical support are also provided as part of the Flex service package.



Flex™

Thermoplastic Single Ply and Multi-Ply
Roofing Systems with DuPont Elvaloy® KEE

1-800-969-0108

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Specify Flex for proven excellence in
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