



Versico's PVC and KEE HP is "Changing the Game"

PVC & KEE HP VS ASPHALT EDITION



BUILDING SOLUTIONS



VERSIFLEX

PVC ROOFING SYSTEMS

For over 50 years, PVC has proven to be a high-performance single-ply roofing membrane. Now Versico has taken PVC to the next level by improving its integrity, flexibility, and weatherability. Asphaltic systems just can't match the proven long-term performance of Versico's VersiFlex PVC and KEE HP.

CHANGING THE GAME

Energy Efficiency

Versico PVC and KEE HP: Versico's white and tan VersiFlex PVC and KEE HP membranes are ENERGY STAR® qualified, Cool Roof Rating Council (CRRC) certified, and Title 24 approved right out of the package. Versico's white PVC and KEE HP membranes feature an initial ENERGY STAR and CRRC solar reflectance of 0.87, thermal emissivity of 0.89, and a Solar Reflective Index (SRI) of 110.

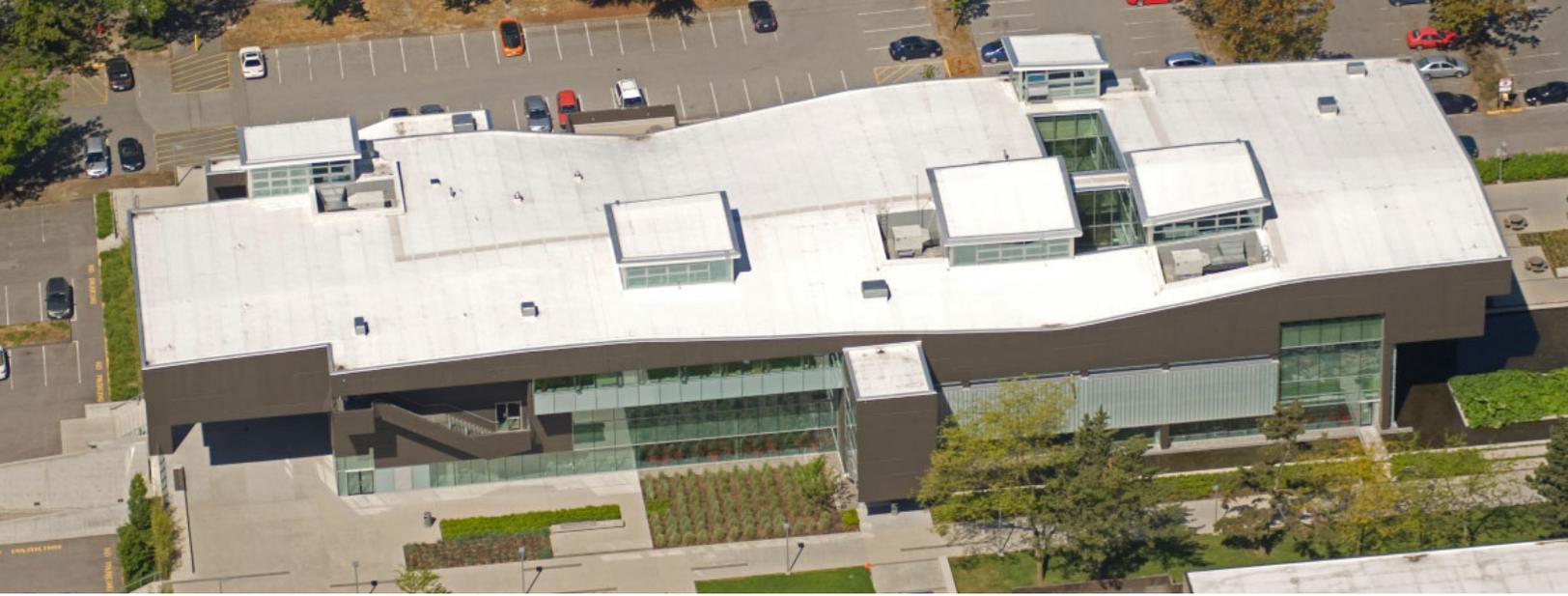
Asphalt Systems: Unlike Versico's PVC and KEE HP Roofing systems, which do not require the need to have a special coating, Asphalt Systems must have this special coating to achieve the ENERGY Star Qualification. These coatings often need to be reapplied every few years to maintain reflectivity and can become dislodged or un-bonded over time. The granular surface texture also promotes dirt accumulation.



Weathering Package

Versico PVC and KEE HP: Xenon arc and long-term heat aging tests show that Versico PVC and KEE HP membranes exceed the highest standards in the industry. Every PVC or KEE HP membrane is enhanced with the highest-grade antioxidants, UV absorbers, and light and heat stabilizers. These ingredients combine to provide Versico's PVC and KEE HP with some of the most dependable, long-term performance characteristics on the market.

Asphalt Systems: UV exposure can break down and extract oils and bitumen from asphalt-based roof systems. Over time, the aging process can craze the surface and it can eventually become brittle enough to crack.



Return on Investment

Versico PVC and KEE HP: Versico's PVC and KEE HP formulations utilize the industry's best weathering package to provide a time-tested, longer-lasting PVC or KEE HP roofing system, with warranties up to 30 years. Building owners can save significantly on air conditioning and maintenance costs, while improving the overall efficiency of their facilities.

Asphalt Systems: Conversely, some asphalt roofs average a lifecycle of less than 15 years before they require considerable maintenance or replacement, and some coatings must be reapplied every few years.

Ease of Installation

Versico PVC and KEE HP: VersiFlex PVC and KEE HP roofs typically take less time to install than asphalt-based systems, minimizing any inconvenience to building occupants. Options such as water-based adhesives mean VersiFlex PVC and KEE HP roofs can be installed without the odor associated with traditional adhesive, as well as greatly reduced labor costs.

Asphalt Systems: Built-up and modified roofing systems are generally heavy and labor-intensive and their fumes can prove to be unacceptable to building occupants.

Warranties

Versico PVC and KEE HP: Since Versico offers Total Roofing System Warranties with terms up to 30 years that cover both material and workmanship, building owners can rest assured that their facilities will have outstanding protection. Additional coverage can be provided for hail, accidental puncture, and extended wind speeds.

Asphalt Systems: Typical warranties for built-up and modified systems provide less coverage because they are shorter in duration and contain additional exclusions.

Convenience

Versico PVC and KEE HP: PVC and KEE HP can be installed with little or no disturbance to building occupants. Odor-free options are available and PVC and KEE HP installations never require the use of torches or hot asphalt.

Asphalt Systems: Often require the use of torches or hot asphalt which can be dangerous to installers and building occupants. The odors associated with these installations are often disturbing to people inside the building.

Flexibility

Versico PVC and KEE HP: The flexibility of PVC and KEE HP membranes make them highly resistant to tears, impacts, and punctures, in addition to allowing for building movement. The membrane remains flexible in hot and cold temperatures for maximum durability and long-term performance.

Asphalt Systems: Built-up and modified roofing systems have limited flexibility and should only be used on roof decks that experience minimal movement. The compression due to cold temperatures or stretching due to hot temperatures often takes a toll on these roofs.

Puncture Resistance

Versico PVC and KEE HP: VersiFleece PVC and KEE HP membranes offer greater dynamic puncture resistance than two-ply asphaltic-based systems in the ASTM D5635 puncture test.

Asphalt Systems: Because of their high modulus, they tend to be less flexible and more susceptible to punctures.

Health & Safety

Versico PVC and KEE HP: PVC and KEE HP are safe to apply, with minimal risk to workers and building occupants. With low- or no-VOC adhesives and prefabricated accessories, exposure is minimized.

Asphalt Systems: These systems can be smelly and messy to install and often cause disruptions to building operations and occupants. Installations produce smoke and odors and require the use of torches, 425°F hot asphalt, or cold adhesives that have strong odors and contain high amounts of solvents.

Safer, Less Disruptive Technology

Versico PVC and KEE HP: Versico offers a variety of adhesives which have reduced odors, fumes, and VOCs, including various water-based, low-VOC, and VOC-free options.

Asphalt Systems: Asphaltic roofing systems can present problems and/or undue risk to the building owner because their installations produces smoke and odors and requires torches, 425°F hot asphalt, or cold adhesives that contain high amounts of solvents.

Ponding water

Versico PVC and KEE HP: PVC and KEE HP membranes are not adversely affected by ponding water. Swimming pool liners made from PVC or KEE HP often have a service life well beyond 20 years. While all roofs should be designed to avoid ponding water, PVC tolerates it much better than other roofing systems.

Asphalt Systems: Ponding water accelerates the loss of surface granules and exposes asphalt membrane to more UV rays. Ponding water has also been known to extract the oils within the asphalt.



Ponding Water Accelerates Granule Loss



Ponding Water Extracts Oils from Asphalt



Prefabricated Accessories

Versico PVC and KEE HP:

Versico stocks a variety of prefabricated accessories and offers countless custom-order accessories. All carry a Certified Fabricated Accessory (CFA) stamp of approval, ensuring that they meet the stringent quality tolerances required to be included in a Versico warranted roofing system. CFAs save time, labor, and money during installation.

Asphalt Systems: Flashing roof penetrations by hand, as is customary with asphaltic systems, is time-consuming and substantially increases the probability of human error.



Re-Covers

Versico PVC and KEE HP: VersiFlex PVC and KEE HP membranes are an ideal choice for re-cover applications because they are lightweight and can re-cover almost any roof type, which eliminates disposal costs and keeps aging roofing materials out of landfills. Versico's VersiFleece PVC and KEE HP membranes usually weigh less than 50 lbs. per square.

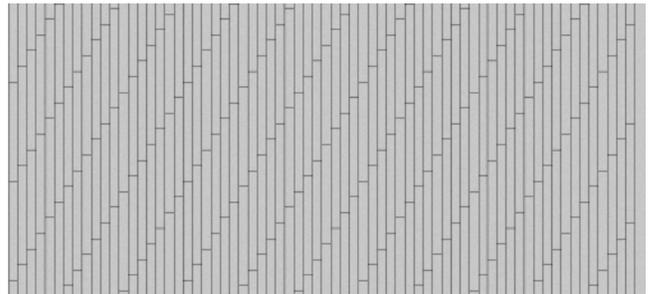
Asphalt Systems: Built-up roofs are heavier (sometimes weighing up to 200 lbs. per square) than many roof systems, making them difficult to use in re-cover applications, and often excluding them from re-cover projects altogether.



Fewer seams

Versico PVC and KEE HP: Field seams are often where workmanship issues can compromise the integrity of the roofing system. Versico VersiFlex PVC and KEE HP membranes are available in 10' widths, reducing the number of seams on the roof and the chance of human error.

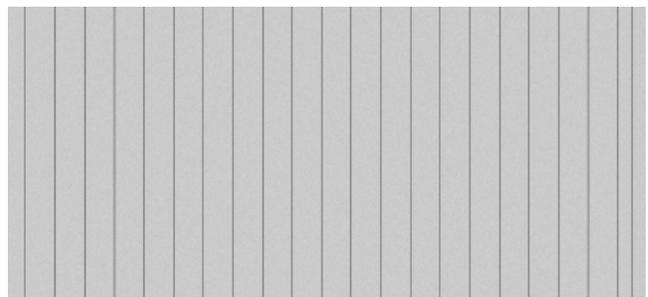
Asphalt Systems: Sheets of asphalt SBS or APP are usually 39 $\frac{3}{8}$ " (1m) wide, resulting in a roof with 300% more field seams than a roof with 10'-wide PVC or KEE HP. More seams increase the chances of installation errors and the possibility of leaks.



20,000-square-foot building
Modified-bitumen sheet layout
39 $\frac{3}{8}$ " x 32' sheets
7,369 lineal feet of seams



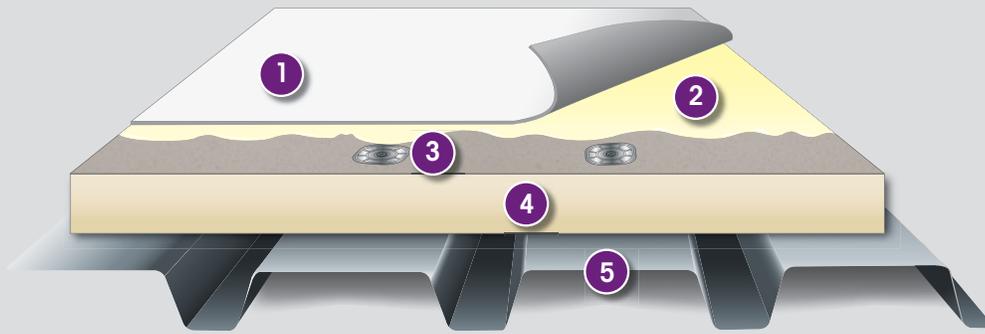
Seams are subject to workmanship issues



20,000-square-foot building
VersiFleece PVC or KEE HP sheet layout
10' x 100' sheets
2,000 lineal feet of seams

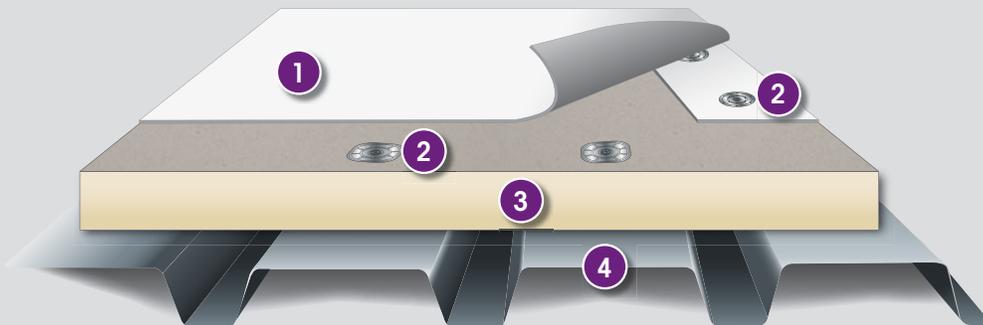
TYPICAL APPLICATIONS

VersiFlex Fully Adhered PVC Roofing System



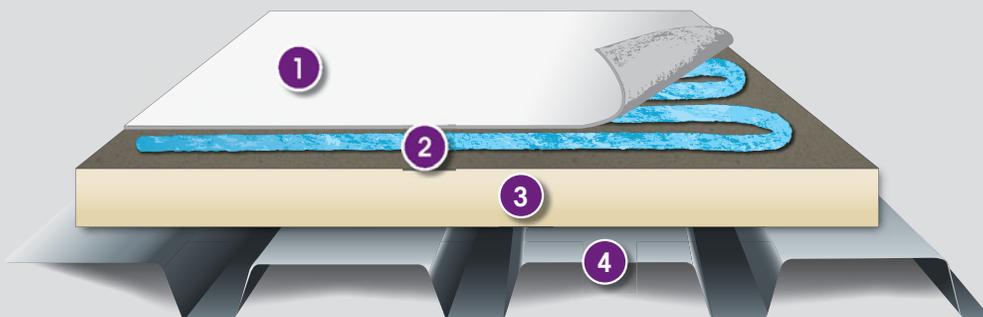
- 1 VersiFlex 50-, 60-, 80-mil Reinforced Membrane
- 2 Bonding Adhesive
- 3 Versico Fasteners and Plates
- 4 Approved Versico Insulation
- 5 Approved Roof Deck

VersiFlex Mechanically Attached PVC Roofing System



- 1 VersiFlex Reinforced Membrane
- 2 Versico Fasteners and Plates
- 3 Approved Versico Insulation
- 4 Approved Roof Deck

VersiFleece® Fully Adhered PVC Roofing System



- 1 VersiFleece PVC and KEE HP Membrane
- 2 Elongating Flexible DASH Adhesive
- 3 Approved Versico Insulation
- 4 Approved Roof Deck

Top 10 Reasons to Choose PVC

PVC is the oldest thermoplastic in the world and the only thermoplastic that does not use 100% fossil fuels. Over 50% of PVC (chlorine) is derived from the salt in salt water and the remainder of the formulation is from natural gas; both are extremely abundant in the world.

1. **Heat Weldability:** Welded seams become solid and monolithic, which helps to prevent leaks. The welding of PVC roofing membranes has a bleed-out in the weld, which is visual confirmation the weld is good. Other thermoplastics do not have a bleed-out of the weld.
2. **Fire Resistant:** PVC is the most fire-resistant of all roofing membranes. PVC will not support fire like other thermoplastics and is self-extinguishing when the flame source is removed.
3. **Chemical Resistance:** PVC is one of the most chemical-resistant single-ply membranes. It has high resistance to animal fats from restaurants, jet fuels from airports, acids, and various other chemicals that might get on the roof and cause damage to other membranes.
4. **Resistance to Ponding Water:** PVC offers excellent resistance to ponding water and is even used to line swimming pools.
5. **Cold Temperature Flexibility:** KEE HP-modified PVC is flexible in temperatures as low as -56°F (-48°C).
6. **Tolerant to High Temperatures:** PVC is compounded with heat stabilizers, which help make it high temperature-tolerant.
7. **Easy to Work With:** PVC is very flexible and easy to work with, which helps to cut down on installation errors.
8. **Wide Window of Welding:** The temperature range in which PVC can be effectively welded is wide, allowing a better chance for good welds and fewer leaks.
9. **Confidence in Welding:** When welded, the PVC membrane will “bleed out”. The darker-colored bottom ply offers an excellent visual cue to the welder, assuring a better weld.
10. **Shelf Life:** No shelf life, does not start to oxidize or crosslink.



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