



## PVC ROOFING SYSTEMS



# VERSIFLEX

## VERSIFLEX™ ROOFING SYSTEMS

The VersiFlex Roofing Systems incorporates 50-mil, 60-mil or 80-mil (PVC) Polyvinyl Chloride membrane.

## VERSICO'S VERSIFLEX

Membrane is comprised of three layers – a PVC polymer bottom ply, a strong polyester-reinforced fabric center (scrim) and a tough thermoplastic PVC-compounded top ply. VersiFlex is specifically designed for long-term performance and is produced with the strictest quality control measures providing end users and owners the most consistent and reliable PVC product on the market today. VersiFlex is classified as Type III as defined by ASTM D4434.

## IT'S COOL

Versico's VersiFlex membranes with their high reflectivity ratings and "cool roof" attributes help reduce the amount of energy required to maintain cool building environments. Less energy consumed results in less pollutants generated back into the atmosphere and directly contributes to a cleaner, cooler environment.

## PUNCTURE RESISTANCE

Stands up to normal foot traffic as well as abuse common to a finished roof.

## HEAT WELDABLE

Hot-air-welded seams enhance the ease of installation.

## CHEMICAL RESISTANCE

VersiFlex Membrane is highly chemical and contaminant resistant. Excellent chemical resistance to acids, bases, restaurant oils and greases.

## FIRE RESISTANCE

VersiFlex roofing meets UL 790 requirements for external fire Class A ratings and UL P assemblies for internal, hourly fire ratings. Consult the UL Building Material Directory for specific assemblies.

## WIND RESISTANCE

VersiFlex roofing has surpassed Factory Mutual's I-90 wind resistance classification, one of the most stringent standards in the industry, as listed in the FM Approval Guide.

## INSTALLATION

VersiFlex heat-welded membrane systems are easy to install as minimal labor and few components are required. VersiFlex membrane can be welded at speeds in excess of 10 feet per minute with a wide window of weldability.

## VERSICO TOTAL SYSTEM WARRANTIES

- 5-year to 20-year No Dollar Limit Total System Warranty coverage is available.
- A warranted system is installed by an Authorized Versico Roofing Contractor.
- A completed warranted system is inspected by a trained Versico Field Service Representative to ensure conformance with Versico specifications.

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### ACCESSORIES

The most critical and time-consuming portion of VersiFlex roofing installation is made easier and faster with VersiFlex accessories. VersiFlex accessories greatly reduce job time and in turn reduce labor time.

#### PVC Bonding Adhesive

is a high-strength, solvent-based, contact adhesive for bonding VersiFlex membrane to various porous and nonporous substrates. Low-VOC PVC Bonding Adhesive is also available for areas where environmental issues are a concern.

#### PVC Cut-Edge Sealant

is a translucent, free-flowing polymeric material designed for sealing cut edges of VersiFlex reinforced membrane.

#### PVC-Coated Metal

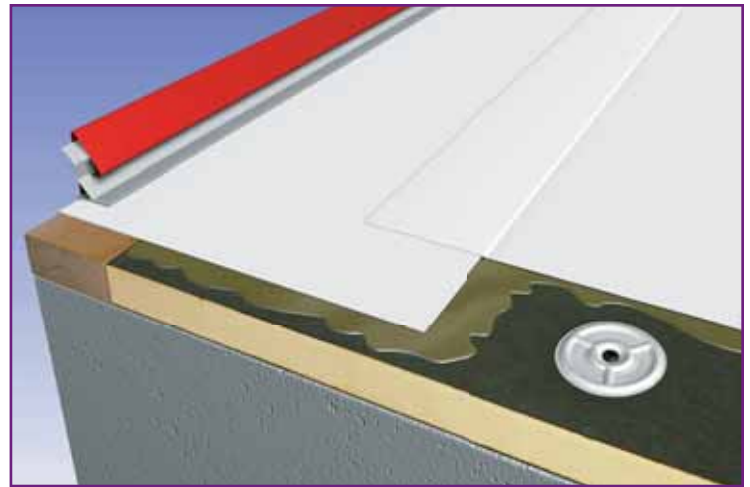
is a galvanized steel sheet coated with a layer of non-reinforced VersiFlex Flashing. The sheet is cut into the appropriate width and used to fabricate metal drip edges or other roof perimeter edge profiles. VersiFlex membrane can be welded directly to the metal.

#### PVC Walkway Rolls

are designed to protect your VersiFlex membrane especially in areas exposed to traffic adjacent to roof hatches and access doors and in areas requiring regular maintenance of rooftop equipment. Walkway rolls may be heat-welded directly to VersiFlex membrane. This process permanently fuses the walkway roll to the membrane, virtually eliminating wind-related problems.

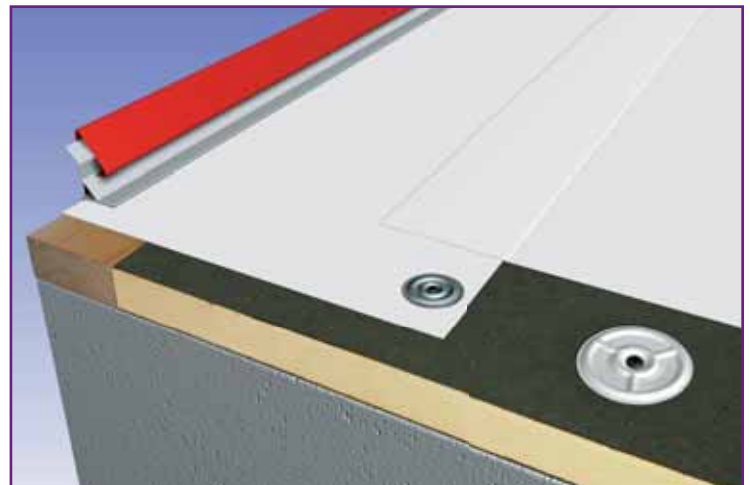
#### PVC Membrane Cleaner

is used to prepare VersiFlex membrane that has been exposed to the weather for an extended period of time or has become contaminated due to exposure to the elements.



#### VersiFlex Fully Adhered Roofing System

begins with insulation mechanically attached to the roof deck. The membrane and substrate are then coated with bonding adhesive. Then the membrane is rolled into place and seams are hot-air welded.



#### VersiFlex Mechanically Attached Roofing System

starts with insulation fastened to the substrate. VersiFlex membrane is then fastened through the insulation with fasteners and plates. (Consult the Versico Fastener Sell Sheet.) Adjoining membrane sheets are overlapped and joined together by hot-air welding.



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### VERSIFLEX .050", 0.60" & .080" REINFORCED PVC MEMBRANE Typical Properties and Characteristics

Physical Property	Test Method	Property of Unaged Sheet	Property After ASTM D3045 Aging 56 days @ 176°F
Tolerance on nominal thickness, %	ASTM D751	±10	
Thickness over scrim, in. (mm) 50-mil & 60-mil 80-mil	ASTM D4434 Optical Method (avg. of 3 areas)	0.016 (0.406) min. 0.025 (0.635) min.	
Breaking Strength, lbf/in. (kN/m)	ASTM D751 Grab Method	200 (35) min. 300 (53) typical	90% min. retention of original breaking strength
Elongation at break of fabric, %	ASTM D751	15 min. 25 typical	90% min. retention of original elongation
Tearing strength, lbf (N) 8 by 8 in. specimen	ASTM D751 B Tongue Tear	45 (200) min. 100 (445) typical	
Low temperature bend, °F (°C)	ASTM D2136	- 40 (- 40) max. - 50 (- 46) typical	
Linear Dimensional Change (shrinkage), % After 6 hours at 176°F (80°C)	ASTM D1204	+/- 0.5 max. - 0.3 typical	
Ozone resistance, 100 pphm, 168 hours	ASTM D1149	No cracks	
Resistance to water absorption After 7 days immersion 158°F (70°C) Change in mass, %	ASTM D570	3.0 max. 2.0 typical	
Field seam strength, lbf/in. (kN/m) Seam tested in peel after welding	ASTM D1876	25 (4.4) min. 60 (10.5) typical	
Water vapor permeance, Perms	ASTM E96	0.10 max. 0.05 typical	
Puncture resistance, lbf (N)	FTM 101C Method 2031	250 (1110) min. 280 (1245) typical 50-mil 320 (1423) typical 60-mil 380 (1690) typical 80-mil	
Resistance to xenon-arc weathering Xenon-Arc, 6300 kJ/m <sup>2</sup> total radiant exposure, visual condition at 10X (ASTM D4434 light & spray cycle)	ASTM G155 0.35 W/m <sup>2</sup> 63°C B.P.T.* 5000 hours	No cracks No crazing	

\* BPT = Black Panel Temperature



### Radiative Properties for ENERGY STAR® Cool Roof Rating Council (CRRC) & LEED®

	Test Method	White PVC
ENERGY STAR initial solar reflectance	Solar Spectrum Reflectometer	0.87
ENERGY STAR solar reflectance after 3 years	Solar Spectrum Reflectometer (uncleaned)	0.61
CCRC initial solar reflectance	ASTM C1549	0.87
CCRC solar reflectance after 3 years	ASTM C1549 (uncleaned)	0.61
CCRC initial thermal emittance	ASTM C1371	0.95
CCRC thermal emittance after 3 years	ASTM C1371 (uncleaned)	0.86
LEED thermal emittance	ASTM E408	0.94
SRI (Solar Reflectance Index)	ASTM E1980	110