VERSICO'S VERSIFLEX-E PVC MEMBRANE

Overview

VersiFlex-E PVC membrane has just the right amount of Elvaloy® and a comprehensive weathering package for superior chemical resistance, UV resistance and long-term weldability. The addition of Elvaloy, a non-volatile resin modifier, provides that extra heat and chemical resistance to the already proven line of VersiFlex PVC membranes.

The physical properties of the membrane are enhanced by a tenacious polyester fabric that is encapsulated by thick PVC/Elvaloy-based top and bottom plies. The smooth surface of the VersiFlex-E PVC membrane allows a total surface fusion weld over a wide temperature range that creates a consistent, watertight monolithic one-piece roof assembly.

Features and Benefits

- Chemical resistance
- Energy efficiency
- Heat weldability
- Low-temperature flexibility
- Impact/puncture resistance
- Easy installation
- Solar, UV, ozone, oxidation resistance

Installation

VersiFlex-E PVC with Elvaloy roof systems are fast to install as minimal labor and few components are required. The membranes weld quickly, cleanly and consistently.

Mechanically Attached Roofing System

The mechanically attached system starts with approved insulation being fastened with a minimum of 5 fasteners per 4 by 8 ft. board. The membrane is then mechanically attached to the deck using HPVX or HPV-XL Fasteners and Plates. Adjoining sheets of membrane are overlapped over the fasteners and plates and joined together with a minimum 1½-inch-wide hot-air weld.

Fully Adhered Roofing System

The fully adhered system starts with a suitable surface to apply the Standard PVC Bonding, Low-VOC PVC Bonding or Aqua Base 120 Bonding Adhesive. After thorough stirring (minimum 5 minutes), apply Bonding Adhesive to substrate and membrane using a 9" (23 mm) medium nap roller. Application shall be continuous and uniform avoiding globs or puddles. An open time of 5 to 50 minutes, based on drying conditions, is recommended before assembly. PVC Bonding Adhesive must be allowed to dry until it does not string or stick to a dry finger touch. Any coated area that has been exposed to rain should be allowed to dry and then recoated. Do not apply adhesive to areas to be hot-air welded. Roll the membrane onto the adhesive-coated substrate while avoiding wrinkles. Immediately brush down the bonded portion of the sheet with a soft-bristle push broom or a clean dry roller applicator to achieve maximum contact.

VERSICO ROOFING SYSTEMS

A SINGLE SOURCE FOR SINGLE-PLY ROOFING

Versico, PO Box 1289, Carlisle, PA 17013
Tel: **800.992.7663** Fax: 717.960.4036 Web: **www.versico.com**

Precautions

1. Sunglasses that filter out ultraviolet light are strongly recommended as the white surface is highly reflective. White surfaces reflect heat and light. Roofing technicians should dress appropriately and wear sunscreen to protect skin from the sun.
2. Smooth surfaces may be slippery due to frost and ice build-up. Exercise caution during cold conditions to prevent falls.
3. Care must be exercised when working close to a roof edge when surrounding area is snow covered as the roof edge may not be clearly visible.
4. Use proper stacking procedures to ensure sufficient stability of the materials.
5. Exercise caution when walking on wet membrane. Membranes may be slippery when wet.
6. Store VersiFlex membrane in the original undisturbed plastic wrap in a cool, shaded area and cover with light-colored, breathable, waterproof tarpaulins. VersiFlex membrane that has been exposed to the weather or contaminated with dirt must be prepared with PVC Membrane Cleaner prior to hot-air welding.

LEED® INFO	
Pre-consumer Recycled Content	10%
Post-consumer Recycled Content	0%
Manufacturing Location	Hillside, NJ
Solar Reflectance Index	White: 109

RADIATIVE PROPERTIES FOR ENERGY STAR®, COOL ROOF RATING COUNCIL (CRRC) AND LEED

Physical Property	Test Method	White
ENERGY STAR – Initial solar reflectance	Solar Spectrum Reflectometer	0.87
ENERGY STAR – Solar reflectance after 3 years	Solar Spectrum Reflectometer (uncleaned)	0.61
ENERGY STAR – Thermal emittance	ASTM E1371	0.95
CRRC – Initial solar reflectance	ASTM C1549	0.86
CRRC – Solar reflectance after 3 years	ASTM C1549 (uncleaned)	0.70
CRRC – Initial thermal emittance	ASTM C1371	0.86
CRRC – Thermal emittance after 3 years	ASTM C1371 (uncleaned)	0.82
LEED – Thermal emittance	ASTM E408	0.94
Solar Reflectance Index (SRI)	ASTM E1980	109

Supplemental Approvals, Statements and Characteristics

1. VersiFlex-E PVC membrane meets or exceeds the requirements of ASTM D4434 Standard Specification for Poly(Vinyl Chloride) Sheet Roofing. VersiFlex-E PVC is classified as type III as defined by ASTM D4434.
2. VersiFlex-E PVC membrane was tested for dynamic puncture resistance per ASTM D5635-04 using the most recently modified impact head. Membrane was watertight after an impact energy of 22.5 J (16.6 ft-lbf) which passes the ASTM D4434 requirement.
3. VersiFlex-E PVC membrane was tested for static puncture resistance per ASTM D5602-98 and exceeded 33 lbf (145 N) which passes the ASTM D4434 requirement.

VERSIFLEX-E PVC WITH ELVALOY MEMBRANE

Typical Properties and Characteristics

	Test Method	Elvaloy 50-mil	Elvaloy 60-mil	Elvaloy 80-mil
Thickness (in.)	ASTM D751	0.050	0.060	0.080
Minimum Thickness Above Scrim (in.)	ASTM D751	0.024	0.029	0.036
Weight/Density (oz/yd²)	ASTM D751	47.0	55.0	73.0
Breaking Strength (grab method, lbs.)	ASTM D751	275 x 235	280 x 250	300 x 275
% Elongation @ Break	ASTM D751	32 x 31	30 x 29	28 x 31
Heat Aging % Retension	ASTM D3045	>90%	>90%	>90%
Tongue Tear Strength (lbs.)	ASTM D751	50 x 95	50 x 105	50 x 100
Low Temperature Bend	ASTM D2136	PASS (-40°F)	PASS (-40°F)	PASS (-40°F)
% Dimensional Change (@ 176°F, 6 hours)	ASTM D1204	0.7 x 0.36	0.6 x 0.27	0.5 x 0.21
Water Immersion	ASTM D570	1.25%	0.87%	0.89%
Ozone Resistance	ASTM D1149	PASS	PASS	PASS
Interply Adhesion (lb./in.)	ASTM D75	20	22	24