

Building 5

Roof replacement

Philadelphia VAMC

3900 Baltimore Ave, Philadelphia PA 19104

Provide labor and material necessary for replacing Building # 5 Roof:

- 1) **Demolition Phase**- The contractor shall remove and properly dispose 2 layers of roofing material – 1st roof with insulation and hot roof with slag and the 2nd roof with insulation and EPDM roofing on top. The contractor will be allowed dumpsters placed in front of building 5, in designated parking spots as directed by the Engineering department. Dumpster will be the contractor's responsibility. The contractor shall maintain the road in front building 5 open all time. The contractor cannot disturb the day to day operation of the medical center.
- 2) **Installation Phase** – Provide and install 600 square feet of decking material / all repairs will be included in the contractor's price for any damaged woods, rafts, and support under the lowest roof level. After repair the wood decking and support contact the carpenter Foreman at 215-823-6114 to inspect the decking and roof support. After making the correction and inspection.
- 3) Apply to top of the wood decking, a 2" Polyisocyanurate insulation layer. Tapper the insulation to roof drains minimizing rain water collection in high roof points. To follow the.
- 4) Apply insulation around internal roof drains, Install lead over top of the tapered insulation panels to promote proper roof drainage. On top of the insulation will be a layer of the CertainTeed Flintastic SA ply base, followed by a layer of CertainTeed Flintastic STA modified Bitumen Roofing product installed to manufacturer specifications. The last layer in the roofing system is the application of the Premium fibered aluminum coating. All vents and penetrations will be integrated properly into the roof system. Extend Roofing to and on top of the parapet wall with a cant strip installed on the roof deck to reduce the strain on the roofing material. The roofing will be finished on top of the parapet wall with a heavy gauge drip edge on the façade side of the building. The top of the drip edge will be taped with 4" fabric and top coated with roofing cement to ensure a water tight seal.
- 5) The Bitumen roofing will be heat applied and burning permit shall be submitted to safety. Fire extinguishers and a charged water hose to ensure a safe application. If a fire permit is required, we will work with the Philadelphia VA safety department to acquire the permit.
- 6) Job duration is 90 calendar days

- 7) Work may be performed after normal work hours, especially when using heat, to avoid discomfort to patient and VA employee.
- 8) Provide 15 years warranty, material and labor on roof.
- 9) All work shall be coordinated with Carpenter foreman at 215-823-6114.
- 10) Contractor cannot disrupt the day to day operation of the medical center.
- 11) The contractor shall submit roofing material used for approval by the VA engineer.
- 12) The contractor shall provide 15 years warranty for labor and material for the roof.
- 13) Qualified contractor, with at least five years of work experience in health care facility. Contractor shall submit at least five similar projects that completed, to be considered for this work.
- 14) All Acronyms are Roofing standards; all roofing contractors are familiar with those acronyms. For reference, the contractor can review the manufacturer literatures to identify the Acronyms.
- 15) Only one walk through will be scheduled for the bidders, the walk through is must to evaluate the work place constrains.
- 16) End



POLYISO INSULATION

SYSTEM ACCESSORIES

POLYISOCYANURATE INSULATION FOR VERSICO ROOFING SYSTEMS

Versico Flat and Tapered Polyiso MP-H

Versico Polyiso Insulation consists of state-of-the-art polyiso foam with superior fire performance characteristics and the ability to retain high R-values ranging from 6.0 to 25.0. Versico Polyiso is manufactured with exceptional strength, using dimensionally stable facers, which add durability to the boards.

Versico Polyiso MP-H and Tapered MP-H feature polyisocyanurate laminated to heavy, black, fiber-reinforced felt facers. Versico Polyiso Insulation is recommended for use for Fully-Adhered, Mechanically Attached and Ballasted VersiGuard and VersiWeld Roofing Systems. Tapered MP-H are manufactured in a tapered profile to promote positive drainage while maintaining the highest thermal efficiency available in a tapered system. Flat and tapered Polyiso are available in 25 psi.

STANDARD SIZES

Nominal Thickness Inches	MP-H LTTR Value
1.0"	8.0
1.2"	7.2
1.3"	7.8
1.5"	9.0
1.6"	9.6
1.8"	10.9
2.0"	12.1
2.3"	14.0
2.5"	15.3
2.7"	16.6
3.0"	18.5
3.2"	19.8
3.4"	21.1
3.8"	23.7
4.0"	25.0

* Available in 4' x 4' and 4' x 8' panels in thickness of 1" to 4". * Available in 25 psi formula.

** Available slopes are 1/8", 1/4", 3/8", 1/2", 5/8" and 3/4" per foot.

*** Long Term Thermal Resistance Values are based on C1289-01 (pending) and CAN/ULC 5770 which provides for a 18-year time weighted average.

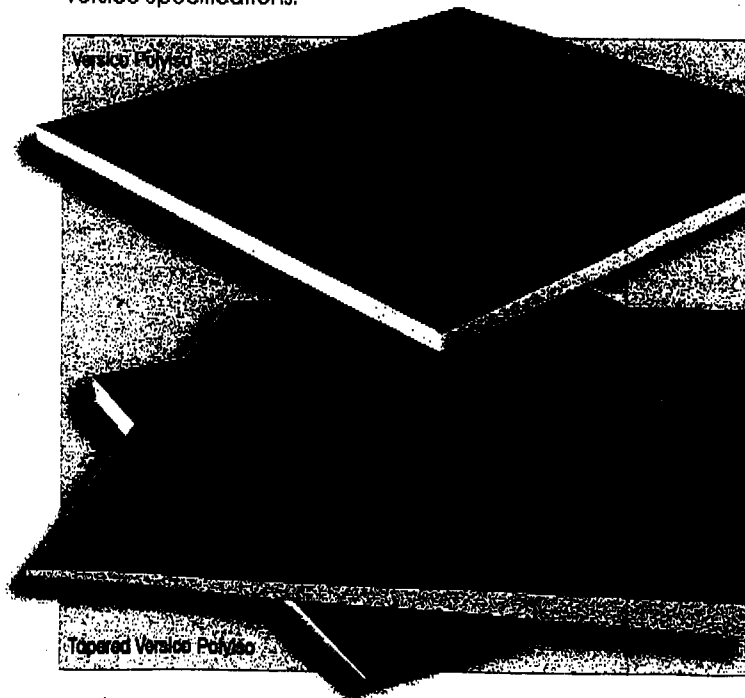
**** Other thicknesses available upon request. Inches to millimeter conversion: 1-inch=25.4-mm. When an LTTR Value greater than 16.6 is required, Versico recommends multiple layers of insulation with staggered joints.

INSTALLATION - BALLASTED

Versico Polyiso or Polyisocyanurate Insulation is loose laid over the roof deck. The insulation must fit together tightly to prevent separation, movement and damage during membrane installation. VersiGuard or VersiWeld Membranes are then loose laid over the Insulation. Adjoining sheets of membrane are seamed together according to current Versico Specifications. The assembly of insulation and membrane are held in place with a minimum of 10 lbs. of ballast per square foot.

INSTALLATION - FULLY ADHERED

Install Versico Polyiso or Polyisocyanurate insulation with perforated side down. Mechanically attach the insulation boards to the substrate, typically every 2-square feet. Coat the insulation and membrane with Substrate Adhesive at a coverage rate of 60-square feet per gallon finished surface. Roll the coated membrane on to the coated insulation and broom to insure contact. Complete the roofing system per Versico Specifications.



VERSICO
INCORPORATED

A subsidiary of Carlisle SynTec Incorporated

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Tel: 800-992-7663 Fax: 717-960-4036 Web: www.versico.com

Technical Product Data

FLINTLASTIC® SA PLYBASE

SELF-ADHERING SBS MODIFIED BITUMEN PLYBASE FOR SA ROOF SYSTEMS

Product Information

Product Use: Flintlastic SA PlyBase is designed for use as a base sheet or interply in self-adhering roofing systems. It is suitable for use in the construction of various types of membranes for both new construction and reroofing, over a variety of substrates without fasteners.

Limitations: When using Flintlastic SA PlyBase, particular attention must be paid to storage and handling, deck preparation, slope and drainage, and application requirements to assure a successful installation and long-term performance.

Product Composition and Features: Flintlastic SA PlyBase is manufactured on a durable, high quality fiber glass mat that receives a coating of modified bitumen compound on the top of the sheet and a self-adhering modified bitumen compound on the back of the sheet. The top surface contains a permanent blue film that must not be removed. The back surface is finished with a removable release film.

Roll Dimensions: 39 3/8" x 64'6"
Nominal Coverage: Two squares
Approximate Weight: 86 lbs.
Top Surface: Permanent film
Bottom Surface: Removable release film

Applicable Standards: Meets ASTM D4601, Type II, D1970 and CGSB 37 GP-56M Type 2a, Class C, Grade 1. Flintlastic SA PlyBase is approved by Underwriters Laboratories for use in various Class A, B and C roof assemblies, Factory Mutual, Miami-Dade, Florida Building Code Statewide Approval (FL 2533 and FL 16709) and Texas Department of Insurance (RC-47).

Technical Data

The following information represents typical average properties of Flintlastic SA PlyBase:

Test Description	Test Method	Results*
Thickness:	ASTM D5147	1.5 mm (60 mils)
Tensile Strength:	ASTM D5147 @ 73°F MD/XD	65/40 lbs./in.
Elongation:	ASTM D5147 @ 73°F MD/XD	6.0%/5.0%
Packaging:	Individual Cartons (20 rolls per pallet)	

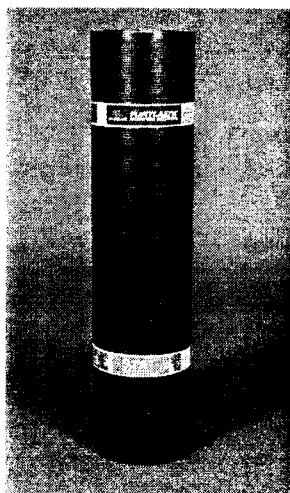
*NOTE: Published results are nominal production values confirmed by independent laboratory testing.

Technical Product Data

FLINTLASTIC® STA

APP MODIFIED BITUMEN ROLL ROOFING PRODUCTS

Product Information



Product Use: Flintlastic STA is designed for use as a roofing membrane over various types of substrates for both new construction and reroofing installations. It is suitable for most low sloped roof decks and may be used for roof system flashings including wall treatments, base flashings and field flashings.

Limitations: Flintlastic STA is intended for torch application only and should not be exposed to adhesives or solvent-based materials. Rolls should be stored upright, off ground, completely protected from the weather. Roof decks shall be structurally sound, dry, smooth and meet or exceed minimum requirements of the deck manufacturer, local code and CertainTeed. Additional specifications and precautions are contained in the CertainTeed Commercial Roof Systems Manual.

Product Composition and Features: Flintlastic modified bitumen membranes are manufactured on state-of-the-art, dedicated roofing lines that were exclusively designed for the production of modified bitumen products. Flintlastic STA is produced with a high-performance, non-woven polyester mat which is impregnated and coated with a superior grade, modified bitumen compound.

Roll Dimensions: 39³/₈" X 32' 10" (Flashing size 9⁷/₈" is available)
Coverage: One square
Approximate Weight: 87 lbs. per roll
Top Surface: Smooth-Talc finish
Back Surface: Torchable Polyethylene Film

Applicable Standards: Meets ASTM D6222, Grade S, Type I. Flintlastic STA is approved by Underwriters Laboratories for use in various Class A, B and C roof assemblies, ICC-ES (ESR-1388), Factory Mutual, Miami-Dade, Florida Building Code Statewide Approval (FL 2533 and FL 16709) and Texas Department of Insurance (RC-47).

Modified Bitumen Coating: Non-oxidized (flux) asphalt, blended with various thermoplastic atactic polypropylene polymers and co-polymers.

Support Mat: High performance, puncture and tear resistant, non-woven polyester mat.

Technical Data

<u>Test Description</u>	<u>Test Method</u>	<u>Results*</u>
Softening Point:	ASTM D36	310°F
Tensile Strength:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD @ 0 +/- 3.6°F MD/XD	95/55 lbs./in. 123/72 lbs./in.
Elongation:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD @ 0 +/- 3.6°F MD/XD	50%/60% 30%/15%
Dimensional Stability:	ASTM D5147 MD/XD	0.5%/0.3%
Low Temperature Flex:	ASTM D5147	Pass @ 8°F
Compound Stability:	ASTM D5147	250°F
Thickness:	ASTM D5147	* 3.8 mm (140 mils)
Tear Strength:	ASTM D5147 @ 73.4 +/- 3.6°F MD/XD	130/90 lbs.

*NOTE: Published results are nominal production values confirmed by independent laboratory testing.



**UNITED
ASPHALT**

Coating

H.M.I.S. RATING

Health	2
Flammability	2
Reactivity	0
Protective Equip.	

MATERIAL SAFETY DATA SHEET

Product Names: Del-Val Premium Fibered Aluminum Coating
Product Code: DV PFA

Product Class: Silver viscous liquid, hydrocarbon odor
Grade: Standard Contractor/Consumer grade

SECTION I - MANUFACTURER IDENTIFICATION

Manufacturer's Name: United Asphalt Company
Address: PO Box 291
Cedar Brook, NJ 08018
Date Revised: March 20, 2014

Information Phone: (856) 753-9811
Emergency Phone: CHEM (800) 424-9300
Outside USA: (856) 753-9811
Date of Issue: 9/25/12 **Replaces:** 3/11/05

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS	OCCUPATIONAL EXPOSURE LIMITS				VAPOR PRESSURE	
	CAS NUMBER	OSHA PEL	ACGIH TLV	OTHER	mm Hg	@ TEMP
PETROLEUM OXIDIZED ASPHALT/BASE ASPHALT	64742-93-4	0.5 MG/M3	5MG/M3		3.0	68F
STODDARD SOLVENT/MINERAL SPIRITS	8052-41-3	100PPM	100PPM	N/A	3.4	68F
CELLULOSE FIBER/ CELLULOSE FIBER	9004-34-6	15MG/M3	10MG/M3			N/A
SYNTHETIC AMORPHOUS SILICA/SILICON DIOXIDE	63231-67-4	6MG/M3	10MG/M3			N/A
ALUMINUM PIGMENT	7429-90-5	15MG/M3	10MG/M3		3.4	68F

Petroleum asphalt may contain detectable amounts of chemicals known to the State of California to cause cancer or reproductive harm. Coal tar pitch volatiles, soots, tars and oils are listed as a carcinogenic category by OSHA, ACGIH, the National Toxicological Program (NTP) and the international Agency for Research on Cancer (IARC). Prolonged or repeated contact may lead to dermatitis; and with poor hygienic practices, to more serious skin disorders such as ulcerations, benign skin growths and skin cancer. Generally, the above ingredients that do not possess a vapor pressure are pigments and are only hazardous as airborne particles when the coating begins to degrade. The HMIS (Hazardous Materials Identification System) codes at the upper right area of this page are recognized by OSHA. The PERSONAL PROTECTION code is left blank on United Asphalt Company MSDSs as it depends on application technique and workplace ventilation. Please read all other sections of this MSDS before deciding on the appropriate protective equipment and beginning work.

SECTION III - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Breathing difficulty, lightheadedness, headache, dizziness and nausea. Irritation to the nose, throat and lungs.

Prolonged inhalation may lead to mucous membrane irritation, central nervous system depression, and unconsciousness. Coal tar and aromatic solvent volatiles - acute effects caused from overexposure may include coughing, sneezing, and swollen or irritated nasal mucus and sinuses. Repeated and/or prolonged contact to high concentrations may result in toxic effects, such as respiratory difficulties, convulsions, and possible cardiovascular collapse may occur.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Irritation and watering of the eyes. Prolonged or repeated contact can cause blurred vision and corneal injury. Coal tar and aromatic solvent volatiles and mist may cause irritation to the eyes. Eye contact with product will result in irritation, which in the absence of recommended first aid, can result in minor burns to eyes.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Irritation of skin, redness and possible swelling. Prolonged or repeated contact can cause dermatitis, defatting. Can be absorbed through skin. Coal tar and aromatic solvent - exposure causes skin irritation characterized by skin itching, burning, swelling, and redness. Photosensitization of the skin may occur. This irritation has a burning sensation somewhat like sunburn and is accentuated by sunlight. Repeated or prolonged contact may contribute to conditions such as dermatitis, tar warts, and rough skin.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Ingredients in this product are reported to aggravate preexisting eye, skin, respiratory, kidney and liver disorders.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE

Choking difficulty in breathing, gastrointestinal irritation, nausea and vomiting. Nervous system depression, which can include drowsiness, dizziness, loss of coordination and fatigue. Coal tar may cause gastrointestinal tract irritation followed by nausea and vomiting, abdominal discomfort, rapid pulse, etc. In extreme cases, cardiovascular collapse may occur.

HEALTH HAZARDS (ACUTE AND CHRONIC)

Breathing difficulty, headache, dizziness, nausea and irritation to the respiratory tract. Causes eye and skin irritation. Irritation of the digestive tract and nervous system depression. Prolonged and repeated overexposure may cause permanent brain and or nervous system damage. Can cause dermatitis. Sanding dust inhalation may cause lung damage. Intentional misuse through inhalation may be harmful or fatal.



**UNITED
ASPHALT**

*Roof
Cement*

H.M.I.S. RATING
Health 2
Flammability 2
Reactivity 0
Protective Equip.

MATERIAL SAFETY DATA SHEET

Product Names: Del Val Flashing Cement
Product Code: DV FLSH

Product Class: Black viscous liquid, hydrocarbon odor
Grade: Standard Contractor/Consumer grade

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Address: PO Box 291 **Emergency Phone:** CHEM (800) 424-9300
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Date Revised: September 28, 2012 **Date of Issue:** 9/25/12 **Replaces:** 3/11/05

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HAZARDOUS COMPONENTS CAS NUMBER OSHA PEL ACGIH TLV OTHER mm Hg @ TEMP
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STODDARD SOLVENT/MINERAL SPIRITS 8052-41-3 100PPM 100PPM N/A 3.4 68F
HYDRATED ALUM-MG SILICATE/ATTAPULGITE 12174-11-7 5MG/M3 3MG/M3 N/A
MINERAL FIBER/MINERAL FIBER 9004-34-6 15MG/M3 10MG/M3 N/A
LIMESTONE CACO3/CALCIUM CARBONATE 1317-65-3 15MG/M3 10MG/M3 N/A

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