



VERSIGARD_o EPDM Roofing Systems
Products

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This Section does not include information on the VersiMop
or VersiWeld Membrane and Accessories.
Such information can be found in the respective specification for each system.

VersiGard EPDM Roofing Systems

Products

This section lists and describes products manufactured or marketed by Versico. Refer to the "General Design and Planning " and/or respective "Installation" sections in this manual for their use and applicability.

The components of Versico's Roofing Systems are to be products of Versico or accepted by Versico as compatible. The installation, performance or integrity of products by others, **when selected by the specifier and accepted as compatible by Versico**, is not the responsibility of Versico and is expressly disclaimed by the Versico Warranty.

Consult the Versico Technical Data Bulletins for the shelf life limitation, coverage rates and application procedures of each product. Refer to the manufacturer's Material Safety Data Sheets for applicable precautions and warnings prior to the use of any product.

A. VERSIGARD EPDM MEMBRANES

1. Cured non-reinforced or reinforced EPDM (Ethylene, Propylene, Diene Terpolymer) compounded elastomer.

Non-Reinforced EPDM membrane is available in **(black)** or **(white-on-black)**. White membrane must be installed with the white surface facing up. **Reinforced EPDM is available in (black) only.**

2. **VersiGard No-Dust (black) EPDM Membrane** (mica dust has been removed during manufacturing) is available for sheets maximum 10' (3 m) wide. Refer to applicable "Installation" sections for installation procedures.
3. Membrane is available in various sizes as outlined below.

a. Non-Reinforced EPDM Membrane

VersiGard (black) .045" (1.1 mm) or .060" (1.5 mm) thick non-reinforced EPDM membrane - maximum 50' (15.24 m) wide, maximum 100' (30.49 m) long (.045" thick membrane is also available in 200' lengths) which meets ASTM D4637 and ANSI/RMA IPR-1.

VersiGard (white-on-black) .060" thick non-reinforced EPDM membrane - maximum 10' (3.05 m) wide, maximum 100' long which meets ASTM D4637 and ANSI/RMA RP-5.

b. Reinforced EPDM Membrane (black only)

VersiGard (black) .045" and .060" thick reinforced EPDM membrane - 4-1/2' (1.37 m), 7' (2.1 m) or 10' wide, maximum 100' long; 10' wide .045" thick membrane is also available in lengths of 200' (60.98 m). Reinforced with polyester fabric which meets ASTM D4637 and ANSI/RMA IPR-2.

Refer to the physical properties listed on the following pages.

VERSIGARD (Black)
.045 INCH and .060 INCH THICK NON-REINFORCED EPDM MEMBRANE
STANDARD AND FIRE RETARDANT (FR)

.045 inch (1.1 mm) thick black non-reinforced EPDM membrane is used for:

1. VersiGard Ballasted Roofing Systems

.060 inch (1.5 mm) thick black non-reinforced FR (Fire Retardant) EPDM membrane is used primarily for the VersiGard Adhered Roofing System. This membrane can also be used for the VersiGard Ballasted and Mechanically Attached systems.

Note: Although .060 inch Non-Reinforced EPDM is recommended for Adhered Roofing Systems, .045 inch FR Non-Reinforced EPDM may be utilized if specified.

Physical Property	Test Method	ASTM SPEC.(Pass)	Typical	
			.045" Standard	.045" & .060" FR
Tolerance on Nominal Thickness, %	ASTM D 412	±10	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D 412	1305 (9)	1550 (10.7)	1550 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	300	480	480
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	200 (35.0)	200 (35.0)
Factory Seam Strength, min.	Modified ASTM D 816	Membrane Rupture	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 4 weeks @ 240°F (116°C)	ASTM D 573			
Tensile Strength, min, psi (MPa)	ASTM D 412	1205 (8.3)	1500 (10.3)	1500 (10.3)
Elongation, Ultimate, min, %	ASTM D 412	200	225	225
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624	125 (21.9)	215 (37.6)	215 (37.6)
Linear Dimensional Change, max, %	ASTM D 1204	±1.0	-0.4	-0.4
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg. C)*	ASTM D 746	-49 (-45)	-67 (-55)	-67 (-55)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D 471	+8.0, -2.0	+2.0	+2.0
Water Vapor Permeance* max, perm	ASTM E 96 (Proc. B or BW)	0.1	.05	.05
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m ² total radiant exposure at .70 W/m ² irradiance, 176°F (80° C) black panel temp.	ASTM G 155	No Cracks No Cracking	No Cracks No Cracking	No Cracks No Cracking
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.				

**VERSIGARD (White-on-Black)
.060 INCH THICK NON-REINFORCED EPDM MEMBRANE**

The membrane is used for Adhered Roofing Systems.

Physical Property	Test Method	ASTM SPEC.(Pass)	Typical
Tolerance on Nominal Thickness, %	ASTM D 412	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D 412	1305 (9)	1685 (11.6)
Elongation, Ultimate, min, %	ASTM D 412	300	480
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	200 (35.0)
Factory Seam Strength, min.	Modified ASTM D 816	Membrane Rupture	Membrane Rupture
Resistance to Heat Aging* Properties after 1 week @ 240°F (116°C)	ASTM D 573		
Tensile Strength, min, psi (MPa)	ASTM D 412	1205 (8.3)	1550 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	200	250
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624	125 (21.9)	185 (32.4)
Linear Dimensional Change, max, %	ASTM D 1204	±1.0	-0.5
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg. C)*	ASTM D 746	-49 (-45)	-67 (-55)
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D 471	+8.0, -2.0	+3.6
Water Vapor Permeance* max., perms	ASTM E 96 (Proc. B)	0.1	.05
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m ² total radiant exposure at .70 W/m ² irradiance, 176°F (80°C) black panel temperature	ASTM G 155	No Cracks No Cracking	No Cracks No Cracking
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.			

VERSIGARD (Black)
.045 INCH and .060 INCH THICK REINFORCED EPDM MEMBRANE
STANDARD AND FIRE RETARDANT (FR)

The membrane is used for:

1. VersiGard Adhered Roofing Systems
2. VersiGard Mechanically-Attached Roofing Systems
3. VersiGard Purlin Attached Roofing Systems
4. VersiGard Ballasted Roofing Systems

Physical Property	Test Method	ASTM SPEC.(Pass)	Typical
Tolerance on Nominal Thickness, %	ASTM D 751	±10	±10
Thickness Over Scrim, min, in. (mm)	ASTM D 4637 Annex	.015 (.381)	.045"-.016 (.406) .060"-.020 (.508)
Breaking Strength, min, lbf (N)	ASTM D 751 Grab Method	90 (400)	180 (800)
Elongation, Ultimate, min, %	ASTM D 751 Grab Method	250 **	480 **
Tear Strength, min, lbf (N)	ASTM D 751 B Tongue Tear	10 (45)	30 (132)
Brittleness Temp., max, deg. F (deg. C) *	ASTM D 2137	-49 (-45)	-60 (-51)
Resistance to Heat Aging * Properties after 4 weeks @ 240°F	ASTM D 573		
Breaking Strength, min, lbf (N)	ASTM D 751	80 (355)	200 (890)
Elongation, Ultimate, min, %	ASTM D 751	200 **	250 **
Linear Dimensional Change, max, %	ASTM D 1204	±1.0	-0.7
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104° F Specimen wrapped around 3" mandrel	ASTM D 1149	No Cracks	No Cracks
Resistance to Water Absorption* After 7 days immersion @ 158°F (70°C) Change in mass, max, %	ASTM D 471	+8.0, -2.0 **	+2.0 **
Resistance to Outdoor (Ultraviolet) Weathering* Xenon-Arc, 7560 kJ/m ² total radiant exposure at .70 W/m ² irradiance, 176°F (80°C) black panel temperature	ASTM G 155	No Cracks No Cracking	No Cracks No Cracking
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.			
** Specimens to be prepared from coating rubber compound, vulcanized in a similar method to the reinforced product.			

B. FLASHING ACCESSORIES

1. Molded Pipe Seals

- a. **VersiGard (Black) EPDM Molded Pipe Seals:** A black, cured, premolded base flashing for pipes up to 6" (15.2 cm) in diameter installed with Seam Adhesive and In-Seam Sealant™.
- b. **VersiGard (Black) or (White) QA Pipe Seals** with adhesive tape pre-applied to the deck flange are available for use with VersiGard Roofing Systems.

2. **VersiGard Penetration Pocket:** A pre-fabricated Penetration Pocket which consists of a 2" (5 cm) wide plastic support strip with pre-applied, adhesive backed uncured Elastoform Flashing; available in 4" (10.2 cm), 6" and 8" (20.3 cm) diameters. Available in black only.

3. **VersiGard QA Inside/Outside Corner:** A 7" (17.8 cm) by 9" (22.9 cm) precut .060" (1.5 mm) thick Elastoform Flashing with a 30 mil (.8 mm) pre-applied adhesive tape. Available in black only.

4. **VersiGard QA Coverstrip:** A nominal 40 mil (1 mm) black, **semi-cured** EPDM membrane laminated to a nominal 30 mil cured, pre-applied adhesive tape. Available in 6" widths and 100' (30.49 m) long rolls used to flash gravel stops, metal edgings and Seam Fastening Plates used for additional membrane securement.

5. **VersiGard QA T-Joint Covers:** A factory cut 6" x 6" (rounded corners), 40 mil thick uncured EPDM flashing laminated to a nominal 30 mil cured pre-applied tape, used to overlay field seam intersections and to cover field seams at angle changes.

6. **VersiGard Clean Cured Flashing:** A cleaned, cured .060" thick non-reinforced (seamless) black EPDM membrane used to flash gravel stops, metal edgings, walls/curbs and Seam Fastening Plates used for additional membrane securement when the use of RTS is not feasible. Available in 6", 9", 12" (30.5 cm) and 18" (45.7 cm) widths and 100' long rolls.

7. **White Cured Flashing:** A cured .060" thick non-reinforced (seamless) white-on-black EPDM membrane used to flash gravel stops, metal edgings, walls/curbs and Seam Fastening Plates used for additional membrane securement when the use of RTS is not feasible. Available in 6", 12" and 18" widths and 100' long rolls.

8. **VersiGard Uncured EPDM Flashing:** An easily formed, .060" (1.5 mm) thick VersiGard Black or White uncured EPDM flashing. VersiGard Black Uncured EPDM Flashing is available in widths of 6", 9", 12", 18" and 24" and lengths of 100'. White Uncured Flashing is available in 6" and 12" widths only.

VersiGard uncured flashing is to be used in conjunction with VersiGard (Black) Roofing Systems and the White uncured flashing is to be used in conjunction with White (white-on-black) Roofing Systems. VersiGard uncured EPDM Flashing is used mainly to flash inside and outside corners, pipes, scuppers and field fabricated Penetration pockets when the use of Versico pre-fabricated flashing accessories is not feasible. This flashing may also be used to flash unusually shaped walls where the use of cured membrane flashing is not feasible.

9. **VersiGard QA Uncured EPDM Flashing:** A 6" by 100' long or 9" wide by 50' long, .040" thick **uncured** EPDM Flashing laminated to a 30 mil pre-applied adhesive tape used in conjunction with VersiGard Primer as an option to VersiGard Uncured EPDM Flashing.

C. CLEANERS, PRIMERS, ADHESIVES AND SEALANTS

Refer to Technical Data Bulletins for material coverage rates and proper usage. Prior to the use of any of the products listed below, consult the Material Safety Data Sheets for applicable cautions and warnings.

1. **Seam Adhesive:** A high strength, butyl-based contact cement which is used for splicing adjoining sections of EPDM membrane (cured or uncured).
 - a. VersiGard Seam Adhesive: Black Seam Adhesive for use with VersiGard (black) Roofing Systems.
 - b. White Seam Adhesive: White Seam Adhesive used with White (white-on-black) Adhered Roofing Systems.
2. **In-Seam Sealant 1124:** A one-part, gun-consistency sealant applied in adhesive seams between **cured** VersiGard EPDM membrane sections.
3. **Lap Sealant:** A black, heavy-bodied material (trowel or gun-consistency) used to seal the exposed edges of a membrane seam. A pre-formed Lap Sealant tool is included in each carton of Lap Sealant.
 - a. VersiGard Lap Sealant: Black sealant for use with VersiGard (black) Roofing Systems.
 - b. White Lap Sealant: White sealant for use with White (white-on-black) Roofing Systems.
4. **VersiGard QA Seam Tape:** A 3" or 6" wide (used for Mechanically -Attached Roofing Systems and 20 year Warranty Systems) by 100' long seam tape used for splicing adjoining sections of EPDM membrane. Complies with the South Coast Air Quality Management District Rule 1168.
5. **White QA Seam Tape:** A 3" wide by 100' long, cream colored seam tape used with White Systems. Complies with the South Coast Air Quality Management District Rule 1168.
6. **VersiGard V-150 Primer:** A solvent-based primer used to prepare the surface of EPDM membrane for application of Seam Tape or QA products.
7. **VersiGard LV-600 Primer:** A low VOC (volatile organic compound) primer (less than 250 grams/liter) for use with Seam Tape or QA products. Complies with the South Coast Air Quality Management District Rule 1168.
8. **VersiGard Substrate Adhesive:** A high-strength, yellow colored, synthetic rubber adhesive used for bonding VersiGard EPDM membranes to various surfaces.
9. **VersiGard B-500 Latex Bonding Adhesive** (for use in areas where volatile organic compound - VOC regulations are in effect): A high-strength, gray colored, water-based contact adhesive used for bonding VersiGard EPDM membrane to various surfaces. Complies with the South Coast Air Quality Management District Rule 1168.
10. **Water Cut-Off Mastic:** A one-component, low viscosity, self wetting, Butyl blend mastic used as a sealing agent between the EPDM membrane or Uncured Flashing and applicable substrates.
11. **VersiGard G-400 Pourable Sealer:** A black, two-component, solvent-free, polyurethane based product used for tie-ins and as a sealant around hard-to-flash membrane penetrating objects such as clusters of pipes and for a daily seal when the completion of flashings and terminations cannot be completed by the end of each work day.
12. **PT-304 Sealant:** A one-part urethane, non-sagging sealant designed for sealing expansion joints, control joints and counterflashings. Available in white only.

- Versico Weathered Membrane Cleaner:** A clear, solvent-based cleaner used to loosen and remove dirt and other contaminants from the surface of exposed EPDM membrane (for repairs, etc.) prior to applying VersiGard Seam Cleaner or Primer. Weathered Membrane Cleaner can also be used in lieu of seam cleaner when applying Seam Adhesive. Available in 5 gallon pails.

D. EPICHLOROHYDRIN (ECO/CO) MEMBRANE AND RELATED PRODUCTS

- Cured, non-reinforced (black), .060" thick ECO/CO compounded Hydrin® epichlorohydrin elastomer which conforms to minimum physical properties as listed below. The membrane is available in maximum 10' widths and 50' lengths.

The membrane is especially designed to resist hydrocarbons, solvents, grease and oil, and is promoted for use as a **protective overlayment on EPDM roofing systems with a minimum slope of 1/4" in 12"**. Versico must be contacted regarding application requirements when ECO/CO membrane is to be specified.

Physical Property	Test Method	SPEC.(Pass)	Typical
Tolerance on Nominal Thickness, %	ASTM D 412	±10	±10
Tensile Strength, min, psi (MPa)	ASTM D 412	1305 (9.0)	1556 (10.7)
Elongation, Ultimate, min, %	ASTM D 412	200	316
Tear Resistance, min, lbf/in (kN/m)	ASTM D 624 (Die C)	150 (26.3)	263 (46.0)
Resistance to Heat Aging* Properties after 168 hours @ 240°F (116°C)			
Tensile Strength, min, psi (MPa)	ASTM D 412	1400 (9.6)	
Elongation, Ultimate, min, %	ASTM D 412	150	
Ozone Resistance* Condition after exposure to 100 pphm Ozone in air for 168 hours @ 104°F (40°C) Specimen is at 50% strain	ASTM D 1149	No Cracks	No Cracks
Brittleness Temp., max, deg. F (deg. C)*	ASTM D 746	-20 (-29)	-20 (-29)
Water Vapor Permeability* max, perms (.060" thickness)	ASTM E 96 (Proc. B)	0.1	.042
Oil Absorption * Change in mass, max, % after 7 days immersion in Diesel fuel #2 at 158°F (70°C)	ASTM D 471	15	13.5
* Not a Quality Control Test due to the time required for the test or the complexity of the test. However, all tests are run on a statistical basis to ensure overall long-term performance of the sheeting.			

- Specialty Membrane Cleaner:** A solvent-based cleaner that provides the clean surface necessary for applying P-30 Seam Adhesive and ECH-1 Lap Sealant.
- P-30 Seam Adhesive:** A high-strength, solvent-based contact cement which is used for splicing adjoining sections of ECO/CO membrane.
- In-Seam Sealant:** A one-part, gun-consistency sealant applied in the seam area between ECO/CO membrane sections.
- ECH-1 Lap Sealant:** A heavy bodied material (trowel or gun consistency) used to seal the exposed edges of ECO/CO membrane seams.

E. FASTENING COMPONENTS

- RTS (Reinforced Termination Strip):** A 6" or 9" wide, 100' long, strip of VersiGard (Black) reinforced EPDM membrane.

The 6" wide standard RTS is used horizontally or vertically at the base of walls, curbs, etc., in conjunction with 2" diameter Fastening Plates below the EPDM deck membrane for additional membrane securement (Polymer Seam Plates are required for Mechanically-Attached Roofing Systems over steel decks). 6" wide standard RTS is also utilized for perimeter membrane securement on VersiGard Mechanically-Attached Roofing System and primary membrane securement on VersiGard Purlin Attached Roofing Systems.

9" wide standard RTS is utilized in conjunction with gravel stops and metal edgings to allow continuation of cured EPDM deck membrane as flashing. 9" wide RTS is utilized for perimeter membrane securement on VersiGard Mechanically-Attached Systems and primary securement on Purlin Attached Systems.

2. **VersiGard QA RTS** (Reinforced Termination Strip): A 6" or 9" wide, nominal .045" thick clean, cured reinforced EPDM black membrane with 3" wide pre-applied adhesive tape laminated along one edge for the 6" wide RTS and along both edges for the 9" wide RTS. 9" wide QA RTS is utilized for perimeter membrane securement on VersiGard Mechanically-Attached Roofing Systems and primary securement on Purlin Attached Roofing Systems.
3. **TPO (white)/EPDM QA RTS**: A 6" wide, nominal .045" thick reinforced TPO membrane with 3" wide pre-applied adhesive tape laminated along one edge. Used for perimeter membrane securement on White Adhered Roofing Systems.
4. **Polymer Seam Plate**: A 2" diameter plastic barbed fastening plate used for membrane and RTS securement for Mechanically-Attached Roofing Systems over steel roof decks. (Available pre-assembled.)
5. **Seam Fastening Plate**: A 2" diameter metal fastening plate used for membrane and RTS attachment on Mechanically-Attached Roofing Systems over wood or structural concrete decks. Seam Fastening Plates are also used in conjunction with RTS or EPDM membrane for additional membrane securement on Adhered or Ballasted Roofing Systems. This plate may be used for insulation attachment on Mechanically-Attached Roofing Systems.
6. **Insulation Fastening Plate**: A nominal 3" diameter FM approved metal plate used for insulation attachment in conjunction with VersiGard Fasteners.
7. **Deck-Tite Fastening Bar**: A 1" x .040" x 10' long galvalume-coated steel fastening bar used primarily for membrane securement in conjunction with Deck-Tite Fasteners on Mechanically-Attached Roofing Systems.
8. **Versico Fasteners**
All Versico Fasteners listed below can be used with VersiGard Roofing Systems. Refer to the applicable specification for specific requirements.
 - a. **HPV Fastener**: A threaded, black epoxy electro-deposition coated (E-Coat) fastener for use with steel, wood plank, minimum 15/32" thick plywood or minimum 7/16" thick oriented strand board (Adhered Roofing Systems only).
 - b. **#12 Standard Fasteners**: A threaded, Phillips head fastener used with 3 inch diameter Versico Insulation Plates. Used for insulation attachment into steel or wood decks.
 - c. **Pre-Assembled ASAP Fasteners**: Versico's #12 Standard Fastener and pre-assembled 3" diameter Plastic Insulation Plate used for insulation attachment on Adhered and Mechanically-Attached Roofing Systems. Installed using Olympic Fastening Tools.
 - d. **Sure-Tite Fasteners**: A nominal .033" diameter fastener incorporating an oversized #3 Phillips head used for membrane securement or Mechanically-Attached Roofing Systems in conjunction with Deck-

Tite Fastening Bars.

- e. **CD-10 Concrete Fastener:** A hammer-driven, non-threaded, black epoxy electro-deposition coated (E-Coat) fastener for use with structural concrete decks rated 3,000 psi or greater.
- f. **MP 14 Concrete Fastener:** A #14 threaded fastener used for minimum 3,000 psi concrete decks.
- g. **NTB Fastener:** A non-penetrating, plastic fastener and corresponding plate used with lightweight deck substrates such as cementitious wood fiber and gypsum.
- h. **Lite-Deck Fastener:** An oversized diameter metal fastener and associated 3" diameter Lite-Deck metal plate for use on Adhered Roofing Systems to attach insulation to dense gypsum decks.
- i. **HPVX Fasteners:** A heavy-duty #15 threaded fastener with a phillips head for use primarily on Adhered assemblies where increased pullout resistance is necessary. Used for steel and wood decks.
- j. **Purlin Fastener:** A hex-head, threaded, self-drilling, black epoxy electro-deposition coated (E-Coat) fastener used for membrane/RTS securement into structural purlins (12-18 gauge) in conjunction with VersiGard and VersiWeld Purlin Attached Roofing Systems.
- k. **Term Bar Nail-In:** A 1-1/4" long expansion anchor with threaded drive pin used for fastening VersiGard Termination Bar or Seam Fastening Plates to concrete, brick or block walls. The fastener is set by hammering the drive pin into place.

F. INSULATION/UNDERLAYMENT

VERSICO INSULATIONS						
Brand Name	Board Size	Thickness		R-Value @40° F (5° C)	Minimum Compressive Strength (1)	Minimum Density
		Inch	Cm			
EPS (Expanded Polystyrene) Tapered and higher density boards are available upon request	4' X 4' (1.2 m X 1.2 m) or	1" 1-1/2" 2"	2.5 3.8 5	4.17 6.25 8.33	10 psi (.7 kg/cm ²)	0.9 pcf (14.42 kg/cu m)

VERSICO INSULATIONS						
		Thickness				
	4' X 8' (1.2 m X 2.4 m)	3"	7.6	12.50		
		4"	10.1	16.67		
		5"	12.7	20.83		
Recovery Board (High density wood fiber with asphalt coated facer)	4' X 4' (1.2 m X 1.2 m) or 4' X 8' (1.2 m X 2.4 m)	1/2"	1.3	1.23	32 psi (2.25 kg/cm ²)	15.5 pcf (248 kg/cu m)
		1"	2.5	2.46		
Versico EPS Composite Board (Expanded Polystyrene/wood fiber composite with asphalt coated facer) Higher density boards are available upon request.	4' X 4' (1.2 m X 1.2 m)	1-1/2"	3.8	5.40	See individual board physical properties.	See individual board physical properties.
		2"	5	7.48		
		2-1/2"	6.4	9.56		
		3"	7.6	11.67		
		4"	10.1	15.75		
		5-1/2"	14	22.06		
Polyisocyanurate MP-H, MP-N and MP-W (Polyisocyanurate with a medium glass facer) Tapered boards are available upon request. R-Value based on 15 year time-weighted average Long-Term Thermal Resistance (LTTR), following standard CAN/ULC-S770, which has been adopted by PIMA (Polyisocyanurate Insulation Manufacturer's Association) beginning January 1, 2003.	4' X 8' (1.2 m X 2.4 m)	1"	2.5	6.00	16 psi (2) (1.13 kg/cm ²)	1.5 pcf (24 kg/cu m)
		1-1/2"	3.8	9.00		
		2"	5	12.10		
		2-1/2"	6.4	15.30		
		3"	7.6	18.50		
		3-1/2"	8.9	21.7		
		4"	10.1	25.00		
Notes: (1) Compressive strength at 10% deformation. (3) Also available up to 25 psi.						

Dens-Deck and Dens-Deck Prime Glass Mat Gypsum Boards (Supplied by Versico)			
Properties	DensDeck or DensDeck Prime *		
Thickness, nominal inches	5/16"	1/2"	5/8"
Width, standard	4'		
Length standard	8' ± 1/4"		
Weight, lbs/ sq. ft. nominal	1/4" thick – 1.1	1/2" thick – 1.95	5/8" thick – 2.5
Surfacing	Glass Mat *		
Flexural Strength, Parallel, lbs. Min (4)	1/4" thick – 40	1/2" thick – 80 (5)	5/8" thick – 100 (5)
Flexural Strength, Perpendicular, lbs. Min (4)	1/4" thick – 50	1/2" thick – 100 (5)	5/8" thick – 140 (5)
Flute Spanability (1)	1/4" thick - 2-5/8"	1/2" thick – 5"	5/8" thick – 8"
Permeance Perms (2)	1/4" thick – 50	1/2" thick – 35	5/8" thick – 32
R-Value (3)	1/4" thick - .28	1/2" thick - .56	5/8" thick - .67
Coefficient of thermal Expansion Inches/inch/° F	8.5 x 10 –6		
Linear Variation with Change in Moisture in/in/%RH	6.25 x 10 –6		
Absorption, % max. (4)	10.0		
Compression, psi	500		
Surface Water Absorption grams (4)	2.5		
Flame spread – Smoke Developed (ASTM D 84)	0		
Fire Classification	1/4" and 1/2" thick ** - UL Class A, ULC S-102, UL 1256, ULC S-126, UL 790 5/8" thick ** - UL Classified "P" Assemblies, ULC S-101		
* DensDeck Prime incorporates a glass mat/primed surface. ** 1/2" and 5/8" thick meet FMRC Class 1	Notes: (1) Tested in accordance with ASTM E 661 (400 lb. Conc. Load). (2) Tested in accordance with ASTM C 335 (dry cup method). (3) Tested in accordance with ASTM C 518 (heat flow meter). (4) Tested in accordance with ASTM C 473 (5) ASTM E 1177 minimums.		

FOAMULAR [®] INSULATIONS (supplied by Versico)						
Brand Name	Board Size	Thickness		R-Value @ 40° F (5° C)	Minimum Compressive Strength (1)	Minimum Density (2)
		Inch	cm			
Thermapink 18 (Extruded Polystyrene)	2' X 8' (.61 m X 2.4 m) or 4' X 8' (1.2 m X 2.4 m)	1"	2.5	5.00	18 psi (1.05 kg/cm ²)	1.35 pcf (22 kg/cu m)
		1-1/2"	3.8	7.50		
		2"	5	10.00		
		2-1/2"	6.4	12.50		
		3"	7.6	15.00		
Thermapink 25 (Extruded Polystyrene) Tapered boards are available upon special request	2' X 8' (.61 m X 2.4 m) or 4' X 8' (1.2 m X 2.4 m)	3/4"	1.9	3.75	25 psi (1.76 kg/cm ²)	1.6 pcf (26 kg/cu m)
		1"	2.5	5.00		
		1-1/2"	3.8	7.50		
		2"	5	10.00		
		2-1/2"	6.4	12.50		
		3"	7.6	15.00		
		3-1/2"	8.9	17.50 (3)		
4"	10.1	20.00 (3)				
Durapink (Extruded Polystyrene)	4' X 8' (1.2 m X 2.4 m)	1/2"	1.3	2.50	18 psi (1.27 kg/cm ²)	1.6 pcf (26 kg/cu m)
		3/4"	1.9	3.75	25 psi	
		1"	2.5	5.00	1.76 kg/cm ²	
Foamular 404 (Extruded Polystyrene with drainage channels) For use above the membrane on Design "C" Loose Laid Protected Roofing Systems.	2' X 8' (.61 m X 2.4 m)	1-1/2"	3.8	7.50	40 psi (2.81 kg/cm ²)	1.8 pcf (29 kg/cu m)
		2"	5	10.00		
		3"	7.6	15.00		
Foamular 400 (Extruded Polystyrene) For use primarily with waterproofing installations.	2' X 8' (.61 m X 2.4 m)	1"	2.5	5.00	40 psi (2.81 kg/cm ²)	1.8 pcf (29 kg/cu m)
		1-1/2"	3.8	7.50		
		2"	5	10.00		
		2-1/2"	6.4	12.50		
		3"	7.6	15.00		
		3-1/2"	8.9	17.50		
4"	10	20.00				
Foamular 600 (Extruded Polystyrene) For use primarily with waterproofing installations.	2' X 8' (.61 m X 2.4 m)	1-1/2"	3.8	7.50	60 psi (4.22 kg/cm ²)	2.2 pcf (35 kg/cu m)
		2"	5	10.00		
		2-1/2"	6.4	12.50		
		3"	7.6	15.00		

Notes:
(1) Value at yield or 5% deformation (10% for Thermapink 18 and 25), whichever occurs first.
(2) The densities listed are minimum in accordance with ASTM C 578-87A (the minimum density listed for Durapink 1/2" Board is based on ASTM C303).
(3) Thickness available in 2' x 8' only.

DOW STYROFOAM INSULATIONS (supplied by Versico)						
Brand Name	Board Size	Thickness		R-Value @ 40° F (5° C)	Minimum Compressive Strength *	Minimum Density
		Inch	cm			
Deckmate	2' X 8' (.61 m X 2.4 m)	2"	5	10	18 psi (1.27 kg/cm ²)	1.35 (22 kg/cu m)
		3"	7.6	15		
	4' X 8' (1.2 m X 2.4 m)	1"	2.5	5		
		1-1/2"	3.8	7.5		
		2"	5	10.0		
2' X 8' (.61 m X 2.4 m)	2-1/2"	6.4	12.5			
	3"	7.6	15			
Deckmate Plus	2' X 8' (.61 m X 2.4 m)	2"	5	10	25 psi (1.76 kg/cm ²)	1.6 (26 kg/cu m)
		3"	7.6	15		
	4' X 8' (1.2 m X 2.4 m)	1"	2.5	5		
		1-1/2"	3.8	7.5		
		2"	5	10.0		
Recovermate	4' X 8' (1.2 m X 2.4 m)	1/2"		2.2	18 psi (1.27 kg/cm ²)	2.0 (32 kg/cu m)

G. INSULATION SECUREMENT ADHESIVE

1. **Sure-Seal FAST 100 Adhesive:** A two-component polyurethane, construction grade, low-rise expanding foam adhesive used for attaching approved insulations to compatible roof decks (concrete, cellular lightweight insulating concrete, gypsum, cementitious wood fiber, wood or steel) or existing smooth or gravel surfaced BUR, modified bitumen or cap sheets.
2. **Sure-Seal FAST 100 Catalyst:** Added to FAST Adhesive (Part B Side) to quicken adhesive reaction time.
3. **VersiGrip Insulation Adhesive:** A one-component, moisture-curing, polyurethane adhesive that is applied directly from its container in approximately 1/2 inch beads spaced a maximum of 12 inches on center to approved substrates.

H. VAPOR/AIR RETARDER

1. **Versico 725 Self Adhering Air and Vapor Barrier:** A 40 mil thick composite consisting of 32 mil self-adhering rubberized asphalt membrane laminated to an 8 mil spun bonded polyester fabric which has a permeability rating (ASTM E-96) of 0.05 perms and is fully compatible with FAST Adhesive. Available in rolls 36 inches wide by 75 feet long (225 square feet).
2. **Versico 702 Primer:** A single component, solvent based, high tack primer used to provide maximum adhesion between Versico 725 Air and Vapor Barrier and an approved substrate. Applied by spray or long nap roller with a coverage rating ranging from approximately 250 square feet per gallon on smooth finishes (i.e., concrete) to 75 square feet per gallon on porous surfaces (i.e., Dens-Deck Prime gypsum board). Available in 5 gallon containers.

I. EDGINGS AND TERMINATIONS

Products listed below can be used with any of the available Versico Roofing Systems. Refer to the applicable Versico details and installation instruction manuals for specific installation criteria.

1. **VersiTrim 200:** A snap-on edge system consisting of 24 gauge galvanized metal water dam and .040", .050" or .063" thick Kynar 500, clear and colored anodized finish or 24 gauge steel, Kynar 500 finish. The fascia is available in a variety of colors and heights varying from 5" to 12-1/2". Custom fascias and colors are available upon request.
2. **VersiTrim Facia:** A metal anchor bar fascia system consisting of a formed quarter hard 0.050" aluminum retainer bar, corrosion resistant fasteners and a 0.040" aluminum or 24 gauge steel snap-on fascia cover. Available in two versions, one for Fully Adhered and Mechanically -Attached Roofing Systems and one for Ballasted Roofing Systems.
3. **VersiTrim 2000:** An anchor bar roof edge fascia system consisting of heavy .100" thick extruded aluminum bar, corrosion resistant stainless steel fasteners and snap-on fascia cover used with Adhered, Mechanically -Attached and Ballasted assemblies. Refer to installation instructions for various sizes, colors and accessories.
4. **VersiTrim Drip Edge:** Designed for use on Adhered and Mechanically -Attached Roofing Systems. Includes a 22 gauge continuous 12' pre-punched 90 degree angle cleat and 12' long fascia sections. Incorporates concealed joint covers and strong 1 -1/4" ring shank nails to provide long-term holding power. A selection of colors in 24 gauge steel, Kynar® 500 and .032" aluminum mil finish or Kynar 500 is available.
5. **VersiTrim Coping:** Incorporates an anchor cleat with pre-slotted holes, a concealed joint cover and 10' or 12' continuous sections of coping cap consisting of .040", .050", .063" or .080" thick Kynar 500, clear and colored anodized finish or 24 gauge steel, Kynar 500 finish. The coping cap is available in a variety of colors and widths. Custom pieces such as tees, crosses, radius copings, etc., are also available.
6. **VersiGard Ballast Retaining Bar:** A ballast retaining perimeter securement system comprised of a slotted (4" on center) extruded mil aluminum retention bar with an integrated compression fastening strip. 1-1/2" stainless steel fasteners with Neoprene washers are provided for stable securement.
7. **Termination Bar:** A 1" wide and .098" thick extruded aluminum bar pre-punched 6" on center which incorporates a sealant ledge to support Lap Sealant and provide increased stability for membrane terminations.

J. OTHER VERSICO ACCESSORIES

1. **SecurTaper:** An ergonomic equipment innovation designed to provide a means for tape seam application that is efficiently driven, user friendly and quality enhancing.
2. **Seam Roller:** A lightweight 6" wide by 2" diameter roller and 62" long handle with a 45° bend. Allows seams to be rolled in an ergonomic stand-up position.
3. **MP Safeguard Mat:** A nominal 6 ounce per square yard, black, UV resistant, polypropylene fabric for use as an underlayment for crushed stone or pavers and a puncture protection mat for various Versico Roofing Systems. Available in rolls 15' wide by 300' long.
4. **Versico Rollout Membrane Underlayment:** A nominal 2.9 ounce per square foot roofing underlayment composed of recycled synthetic fibers, needle punched and coated on one side. The coating is cured to form a firm crust and is installed with the "crust" side facing upwards. Versico Rollout can be used as an alternative to Versico Recovery Board in Versico's VersiGard Mechanically -Attached or Ballasted Systems. It is available in 6'x 60' and 12'x 60' rolls.
5. **Seam Wipes:** Used in conjunction with Weathered Membrane Cleaner or V-150 Primer to clean membrane prior to splicing or applying Lap Sealant.

6. **Hycron[®] Gloves:** A specially coated glove for protection of hands from irritations and stains during the use of Seam Cleaners, Primers, Seam Adhesives and Bonding Adhesives.
7. **Lay Flat Tubing:** 2-1/2" diameter, 15' long tubing filled with dry sand, used in conjunction with Penetration to temporarily seal the edge of the membrane and to protect completed sections of the roof when nightfall or inclement weather interrupts installation.
8. **Expansion Joint Supports:** A high quality foamed EPDM expansion joint support for use with all VersiGard Roofing Systems; available in two profiles for use at expansion joints within the field of the roof and along parapet walls.
9. **Roof Walkways:** Used to provide protection for areas of EPDM membrane that are exposed to regular rooftop maintenance. The pads are adhered to EPDM membrane with VersiGard Seam Adhesive or Seam Tape.
 - a. **Molded Walkway Pads:** A black, molded rubber walkway pad with slip resistant surface and factory rounded corners available in 30" by 30" pads, approximately 3/16" in thickness (not including raised "nibs").
 - b. **QA Walkway Pads:** Molded walkway pads with SecurTAPE preapplied to the bottom surface.
 - c. **Walkway Rolls:** A black, shredded, compressed rubber walkway pad available in 30" wide by 30' long rolls, approximately 5/16" in thickness.
10. **Versico VersiPaver:** A 2' by 2' by 2" thick rubber paver weighing approximately 24 pounds per unit, 6 pounds per square foot manufactured from recycled rubber which provides a resilient, shock absorbing, weather resistant surface. Designed primarily for use as a walkway or on terrace areas offering a unique, environmentally sound advantage over concrete pavers. Features include freeze/thaw stability, bi-directional drainage and no breakage concerns.
11. **VersiGard Insert Drains:** Available in VersiGard Insert, Vandal Resistant and Add-On Drain models; ideally suited for the reroofing market and are extremely cost effective when compared to removing and replacing existing drain bowls and associated plumbing costs. Insert Drains are designed to retrofit 3", 4", 5" or 6" drain assemblies. The Add-On model is available to connect with 4" outside diameter cast iron or PVC pipe.

Pipe/Equipment Support System: A non-penetrating support system designed to carry piping, conduit, duct work and elevated walkways across the roof or to support equipment such as air conditioners on the roof.
12. **Versico Acrylic Coating:** A water-based color coating used with EPDM membrane. Available in standard colors of white and gray.
13. **Versico EPDM Coating:** A black synthetic rubber-based coating primarily used for coating VersiGard flashings to assist in extending serviceable life after warranty expiration.
14. **Other Accessories Available:** 6" blade heavy-duty scissors and 2" wide steel hand rollers.

This specification represents the applicable information available at the time of its publication. Owners, specifiers and Versico authorized roofing applicators should consult Versico or their Versico Manufacturer's Representative for any information which has subsequently been made available.

Review the appropriate Versico warranty for specific warranty coverage, terms, conditions and limitations.

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