



## Manufacturer's Specification for NVELOP

### Tie-Ins for Dissimilar Carlisle Construction Materials (CCM) Building Envelope Thermal and Moisture Protection Products

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December 2017

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# **Manufacturer's Specification for NVELOP Tie-Ins for Dissimilar Carlisle Construction Materials (CCM) Building Envelope Thermal and Moisture Protection Products**

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## **PART I GENERAL**

### **1.01 System Description**

- A. NVELOP consists of materials and installation for tie-in of dissimilar CCM thermal and moisture protection products. Tie-ins are made with a physical overlap of CCM flashing or membrane to form an air and water tight connection of one CCM product to a neighboring CCM product.
- B. Dissimilar CCM thermal and moisture protection products can be joined with NVELOP tie-ins as follows:
  - 1. Below grade waterproofing to above-grade wall air and water resistive barriers.
  - 2. Above-grade deck waterproofing to above-grade wall air and water resistive barriers.
  - 3. Steep slope roofing underlayment to above-grade wall air and water resistive barriers.
  - 4. Steep slope roofing underlayment to fully-adhered single-ply roof membranes.
  - 5. Low-slope roof air & vapor barriers to above-grade wall air and water resistive barriers.
  - 6. Above-grade deck waterproofing to low-slope roof air & vapor barriers.
  - 7. Above-grade deck waterproofing to fully-adhered single-ply roofing membranes.
  - 8. Fully-adhered single-ply roofing membranes to above-grade wall air and water resistive barriers.

### **1.02 Design Considerations**

- A. The building envelope encompasses the entire surface of a building, including roofs, walls, foundations and floor slabs that separate the conditioned space from the outdoor environment. The main purposes of thermal and moisture protection products of the building envelope are to keep water out and to allow thermal control within the building. Building envelope design is a major factor in determining the amount of energy a building will use in its operation.
- B. Continuity of air and water resistive barrier materials is essential for effective building envelope performance. Tie-ins of dissimilar products are often neglected or incorrectly executed. Missing or poor tie-ins are a common source of air and water leakage. NVELOP provides a remedy to this problem.
- C. The NVELOP specification provides tie-ins of dissimilar CCM products. The NVELOP tie-ins provide junction of neighboring dissimilar CCM products with an air and water-tight, durable connection, composed of compatible materials.
- D. CCM products shall be selected and installed according to the requirements in the respective CCM roofing, waterproofing and wall air & water resistive barrier product literature and specifications.
- E. Whenever possible, use CCM's standard published NVELOP details. If project-specific details are required, these shall be made to mimic the material overlap shown in corresponding published NVELOP details. Project-specific tie-in details shall be approved by CCM in writing before their installation.



- F. The building envelope construction at tie-in conditions shall be of sound materials for acceptance of CCM products. Furthermore, these assemblies shall be constructed to deflect and drain moisture from exterior sources such as rain or ground water and to avoid entrapment or accumulation of moisture from interior sources such as humidification and occupancy.

### 1.03 Quality Assurance

- A. Preconstruction meetings shall be held among the trades installing the tie-ins and related construction. Establish each trade's responsibility and installation sequence for effective installation of tie-ins.
- B. Build a mock-up(s) before proceeding with the Work, satisfactory to the Design Professional or Owner's Representative. Mock-up(s) shall incorporate each type of tie-in.
- C. Design Professional or Owner's Representative shall perform visual inspections of thermal and moisture protection product tie-ins on the Project with sufficient frequency that all Work is inspected before it is covered up
- D. CCM requires the use of CCM-supplied products for use in the subject assemblies of the building envelope. The performance or integrity of products by others, **when selected by the specifier and accepted as compatible by CCM**, is not the responsibility of CCM and is **disclaimed** by the applicable CCM Warranty.
- E. There must be no deviations made from CCM specifications or approved drawings (where applicable) without the **PRIOR WRITTEN APPROVAL** of appropriate CCM company.

### 1.04 Submittals

- A. Complete the NVELOP or NVELOP PLUS warranty application form as directed in that document.
- B. With the warranty application, submit all CCM-approved, project-specific details.
- C. Remit \$500 payment to Carlisle Construction Materials Warranty Department for the NVELOP PLUS warranty.

### 1.05 Warranty

- A. Warranty provides for replacement of CCM materials in tie-ins which have exhibited air or water leakage as a result of product manufacturing defects or as a result of chemical incompatibility of neighboring CCM products.
- B. NVELOP standard 5-year material warranty.
- C. NVELOP-PLUS 10-year or 15-year material warranty. The shortest-warranted CCM product of the tie-ins shall be greater than or equal to the duration of the NVELOP-PLUS warranty.

### 1.06 Code Approvals

- A. Building codes are above and beyond the intended purpose of this specification. The specifier should consult local codes for applicable requirements or contact Carlisle for additional clarification.

For code approvals achieved with the CCM roofing, waterproofing or air & water resistive barrier systems, refer to the respective CCM product's literature.

## PART II PRODUCTS

### 2.01 General

- A. Among a long list of products and components offered by CCM, outlined below are the most suited products for the specific applications listed.
- B. **Manufacturer:** Building envelope products contained in this section are manufactured by these CCM companies:
1. Carlisle Coatings & Waterproofing Incorporated (CCW), 900 Hensley Lane, Wylie, TX 75098, Phone: (800) 527-7092.
  2. Versico Roofing Systems – A Carlisle Construction Materials Company, P.O. Box 1289, Carlisle, PA 17013, Phone: (800) 992-7663
  3. Carlisle WIP Products, P.O. Box 7000, Carlisle, PA 17013, Phone: (888) 717-1440
  4. Hunter Panels - A division of Carlisle Construction Materials, LLC, 15 Franklin Street, Portland, ME 04101, Phone (888) 746-1114
  5. Insulfoam – A division of Carlisle Construction Materials, LLC, 19727 57<sup>th</sup> Avenue East, Puyallup, WA 98387, Phone 800-248-5995

### 2.02 CCW Waterproofing Products for Below-Grade Structures and Above-Grade Decks

Application	Main Products	Assembly Description
Self-Adhered Sheet for Vertical Below Grade Wall Waterproofing	Membrane: <b>MiraDRI 860/861 or MiraDRI 860 ULT</b>  Engineered Drainage Composite: <b>MiraDRAIN 6000 series</b>	<ul style="list-style-type: none"> <li>• 60-mil (1.5 mm) thick self-adhered sheet waterproofing membrane bonded to substrate treated with approved CCW contact adhesive.</li> <li>• Engineered drainage composite placed over membrane.</li> <li>• Backfill against drainage composite.</li> </ul>
Asphalt Emulsion Waterproofing for Vertical Below Grade Walls	Membrane: <b>Barricoat-S OR Barricoat-R</b>  Engineered Drainage Composite: <b>MiraDRAIN 6000 series</b>	<ul style="list-style-type: none"> <li>• 60-mil (1.5 mm) dry thickness fluid-applied, polymer-modified asphalt emulsion waterproofing membrane bonded to substrate.</li> <li>• Engineered drainage composite placed over membrane.</li> <li>• Backfill against drainage composite.</li> </ul>
Cold Fluid-Applied Waterproofing for Vertical Below Grade Walls	Membrane: <b>MiraSEAL</b>  Engineered Drainage Composite: <b>MiraDRAIN 6000 series</b>	<ul style="list-style-type: none"> <li>• 60-mil (1.5 mm) dry thickness cold fluid-applied waterproofing membrane. Fully bonded to substrate treated with approved CCW contact adhesive.</li> <li>• Engineered drainage composite placed over membrane.</li> <li>• Backfill against drainage composite.</li> </ul>
Hot Rubberized Asphalt Liquid for Split Slab and Plaza Deck Waterproofing	Membrane Option 1: <b>CCW-500R</b>  Membrane Option 2: <b>CCW Vapor-Lock</b>  Self-Adhered Sheet Membrane with Heat-Resistant, Woven Polyester Facer: <b>CCW-711-90</b>  Protection Course #1: <b>Protection Board-HS</b>	<ul style="list-style-type: none"> <li>• Option 1 - 215-mil (5.5 mm) thickness reinforced membrane <ul style="list-style-type: none"> <li>○ 90 mils (2.3mm) hot liquid rubberized asphalt membrane applied over prepared substrate.</li> <li>○ Reinforcing fabric set in hot liquid rubberized asphalt membrane</li> <li>○ 125 mils (3.2mm) hot liquid rubberized asphalt membrane applied over reinforcing fabric</li> </ul> </li> <li>• Option 2 - 215-mil (5.5 mm) thickness composite membrane <ul style="list-style-type: none"> <li>○ 90 mils (2.3mm) self-adhered sheet</li> </ul> </li> </ul>

Application	Main Products	Assembly Description
	<p>Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b></p> <p>Insulation: (Optional) <b>Insulfoam XV 60 psi Expanded Polystyrene</b></p> <p>Protection Course #2: (Use with insulation) <b>CCW 300HV Protection Fabric</b></p> <p>Finish Course: <b>Pavers provided by CCW or Wearing Slab</b></p>	<p>membrane with heat-resistant, woven polyester facer; Sheet membrane applied over substrate prepared with CCW contact adhesive.</p> <ul style="list-style-type: none"> <li>○ 125 mils (3.2mm) hot liquid rubberized asphalt membrane applied over reinforcing fabric</li> </ul> <ul style="list-style-type: none"> <li>● Protection course #1 placed over membrane.</li> <li>● Engineered drainage composite placed over protection course.</li> <li>● Board insulation placed over drainage composite.</li> <li>● Protection course #2 placed over board insulation.</li> <li>● Finish course applied over protection course # 2 or over drainage composite if insulation is not used.</li> </ul>
<p>Cold Fluid-Applied Waterproofing or Split Slab, Plaza Deck , Balcony and Deck</p>	<p>Membrane: <b>MiraSEAL</b></p> <p>Protection Course #1: <b>CCW RootBARRIER</b></p> <p>Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b></p> <p>Insulation: <b>Insulfoam XV 60 psi Expanded Polystyrene</b></p> <p>Protection Course #2: <b>CCW 300HV Protection Fabric</b></p> <p>Finish Course: <b>Pavers provided by CCW, Wearing Slab or Tile set in Mortar Bed</b></p>	<ul style="list-style-type: none"> <li>● 120-mil (3 mm) dry thickness reinforced membrane: <ul style="list-style-type: none"> <li>○ 60 mils (1.5mm) liquid modified polyether applied over substrate</li> <li>○ Reinforcing fabric set in liquid modified polyether</li> <li>○ 60 mils (1.5mm) liquid modified polyether applied over reinforcing fabric</li> </ul> </li> <li>● Protection course #1 placed over membrane.</li> <li>● Engineered drainage composite placed over protection course.</li> <li>● Board insulation placed over drainage composite.</li> <li>● Protection course #2 placed over board insulation.</li> <li>● Finish course applied over protection course</li> </ul>
<p>Self-Adhered Sheet for Balcony and Deck Waterproofing</p>	<p>Membrane: <b>MiraDRI 860/861 or MiraDRI 860 ULT</b></p> <p>Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b></p> <p>Insulation (Optional) <b>Insulfoam XV 60 psi Expanded Polystyrene</b></p> <p>Protection Course: (Use with insulation) <b>CCW 300HV Protection Fabric</b></p> <p>Finish Course: <b>Wearing Slab or Tile set in Mortar Bed</b></p>	<ul style="list-style-type: none"> <li>● 120 mil (3mm) membrane application: <ul style="list-style-type: none"> <li>○ 60-mil (1.5 mm) thick self-adhered sheet waterproofing membrane. Fully bonded to substrate treated with approved CCW contact adhesive.</li> <li>○ 2<sup>nd</sup> layer of 60-mil (1.5 mm) thick self-adhered sheet waterproofing membrane, adhered over 1<sup>st</sup> layer.</li> </ul> </li> <li>● Engineered drainage composite placed over membrane.</li> <li>● Board insulation placed over drainage composite.</li> <li>● Protection course placed over board insulation.</li> <li>● Finish course applied over protection course or over drainage composite if insulation is not used</li> </ul>
<p>Combination Liquid and Sheet Waterproofing for Balcony and Deck Waterproofing</p>	<p>Membrane: <b>CCW-860P: Consists of CCW Liqui-DECK and MiraDRI 860/861</b></p> <p>Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b></p> <p>Insulation: (Optional) <b>Insulfoam XV 60 psi Expanded Polystyrene</b></p> <p>Protection Course: (Use with insulation) <b>CCW 300HV Protection Fabric</b></p>	<ul style="list-style-type: none"> <li>● 120-mil (3 mm) thick membrane consisting of the following: <ul style="list-style-type: none"> <li>○ 60-mil (1.5 mm) thick, liquid-applied, 2-part polyurethane waterproofing membrane bonded to substrate.</li> <li>○ 60-mil (1.5 mm) thick self-adhering sheet waterproofing membrane bonded over polyurethane membrane.</li> </ul> </li> <li>● Engineered drainage composite placed over membrane.</li> <li>● Board insulation placed over drainage composite.</li> <li>● Protection course placed over board insulation.</li> <li>● Finish course applied over protection course or over</li> </ul>

Application	Main Products	Assembly Description
	Finish Course: <b>Wearing Slab or Tile set in Mortar Bed</b>	drainage composite if insulation is not used.
Fully-Adhered Sheet Waterproofing for Below Slab	Membrane: <b>MiraPLY-H</b>  Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b>	<ul style="list-style-type: none"> <li>Engineered drainage composite placed fabric-side down in soil.</li> <li>70-mil (1.8 mm) thick sheet membrane placed over drainage composite. Adhesive side of membrane faces up.</li> <li>Re-bar installed over membrane</li> <li>Concrete slab poured directly against adhesive side of membrane.</li> </ul>
Bentonite Waterproofing for Below Slab	Membrane: <b>MiraCLAY, MiraCLAY EF or MiraCLAY GM</b>  Engineered Drainage Composite: <b>MiraDRAIN 9000 series</b>	<ul style="list-style-type: none"> <li>Engineered drainage composite placed fabric-side down in soil.</li> <li>Bentonite composite sheet waterproofing membrane placed over drainage composite.</li> <li>Rebar installed over membrane.</li> <li>Concrete slab poured directly against membrane.</li> </ul>
Fully-Adhered Sheet Waterproofing for Blind Side and Zero Lot Line Below-Grade Walls	Membrane: <b>MiraPLY-V</b>  Engineered Drainage Composite: <b>MiraDRAIN 6000 series</b>	<ul style="list-style-type: none"> <li>Engineered drainage composite fastened with fabric side against lagging.</li> <li>70-mil (1.8 mm) thick sheet membrane fastened to lagging through drainage composite. Adhesive side of membrane faces installer.</li> <li>Re-bar and forms installed over membrane</li> <li>Concrete foundation wall poured directly against adhesive side of membrane.</li> </ul>
Bentonite Waterproofing for Blind Side and Zero Lot Line Below-Grade Walls	Membrane: <b>MiraCLAY (Bentonite)</b>  Engineered Drainage Composite: <b>MiraDRAIN 6000 series</b>	<ul style="list-style-type: none"> <li>Engineered drainage composite fastened with fabric side against lagging.</li> <li>Bentonite composite sheet waterproofing membrane fastened to lagging through drainage composite.</li> <li>Re-bar and forms installed over membrane</li> <li>Concrete foundation wall poured directly against membrane.</li> </ul>

### 2.03 CCW Membrane Air and Water Resistive Barriers (WRBs) – For Above-Grade Exterior Walls

Application	Main Products	Assembly Description
Self-Adhered Sheet, Burn and UV Resistant Air, Water Resistive and Vapor Barrier	<b>Fire Resist 705 FR-A</b> Or <b>Fire Resist 705 FR-A XLT</b>	<ul style="list-style-type: none"> <li>40-mil (1 mm) thick self-adhered sheet membrane bonded to substrate treated with approved CCW contact adhesive.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation.</li> </ul>
Self-Adhered Sheet Air, Water Resistive and Vapor Barrier	<b>CCW-705</b> Or <b>CCW-705 XLT</b>	<ul style="list-style-type: none"> <li>40-mil (1 mm) thick self-adhered sheet membrane bonded to substrate treated with approved CCW contact adhesive.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation</li> </ul>
High-Temperature Resistant Air, Water and Vapor Barrier for installation directly behind Metal Cladding	<b>CCW-705 HT</b>	<ul style="list-style-type: none"> <li>40-mil (1mm) thick, high-temperature resistant, self-adhering sheet membrane bonded to substrate treated with approved CCW contact adhesive.</li> <li>Exterior metal cladding system fastened to structure through membrane.</li> </ul>
Self-Adhered Sheet	<b>Fire Resist 705 VP</b>	<ul style="list-style-type: none"> <li>23-mil (0.6 mm) thick self-adhered sheet membrane bonded to substrate</li> </ul>

Application	Main Products	Assembly Description
Vapor-Permeable Air and Water Resistive Barrier		<ul style="list-style-type: none"> <li>treated with approved CCW contact adhesive.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation</li> </ul>
Fluid-Applied, Synthetic Polymer, Air, Water Resistive and Vapor Barrier	<b>Fire Resist Barritech NP</b> Or <b>Fire Resist Barritech NP LT</b>	<ul style="list-style-type: none"> <li>40-mil (1 mm) dry thickness fluid-applied membrane bonded to substrate.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation</li> </ul>
Fluid-Applied, Asphalt Emulsion, Air, Water Resistive and Vapor Barrier	<b>Barriseal-S</b> Or <b>Barriseal-R</b>	<ul style="list-style-type: none"> <li>40-mil (1 mm) dry thickness fluid-applied membrane bonded to substrate.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation</li> </ul>
Fluid-Applied, Vapor-Permeable Air and Water Resistive Barrier	<b>Fire-Resist Barritech VP</b> Or <b>Fire-Resist Barritech VP LT</b>	<ul style="list-style-type: none"> <li>40-mil (1 mm) dry thickness fluid-applied membrane bonded to substrate.</li> <li>Optional: Exterior insulation installed over membrane.</li> <li>Code compliant exterior cladding system fastened to structure through membrane and insulation</li> </ul>

#### 2.04 CCW Foam Sheathing Continuous Insulation Air and Water Resistive Barriers for Above Grade Exterior Walls

Application	Main Products	Assembly Description
Reinforced Foil-Faced Polyiso Covered with Sheet WRB	Polyiso Foam Sheathing: <b>R2+ SHEATHE</b>  Fully-Adhered Sheet WRB: <b>Fire Resist 705 VP</b>	<ul style="list-style-type: none"> <li>Polyiso foam sheathing boards fastened to structure.</li> <li>Fully-adhered sheet WRB installed over polyiso foam boards.</li> <li>Code compliant exterior cladding system fastened to structure through polyiso foam sheathing and WRB.</li> <li>Code-approved thermal barrier installed between polyiso foam sheathing and interior space</li> </ul>
Reinforced Foil-Faced Polyiso with WRB Tape and Flashings	Polyiso Foam Sheathing: <b>R2+ SHEATHE</b>  WRB Tape: <b>Foil-GRIP 1402</b>  WRB Flashing: <b>Aluma-GRIP 701</b>	<ul style="list-style-type: none"> <li>Polyiso foam sheathing boards fastened to structure.</li> <li>WRB tape installed over board joints, WRB flashing installed over openings, corners and terminations.</li> <li>Code compliant exterior cladding system fastened to structure through polyiso foam sheathing.</li> <li>Code-approved thermal barrier installed between polyiso foam sheathing and interior space</li> </ul>
Insulating Nail Base Covered with Sheet WRB	Insulating Nail Base: <b>R2+ BASE</b>  Fully-Adhered Sheet WRB: <b>Fire Resist 705 VP</b>	<ul style="list-style-type: none"> <li>Insulating nail base boards fastened to structure.</li> <li>Fully-adhered sheet WRB installed over insulating nail base boards.</li> <li>Code compliant exterior cladding system fastened to insulating nail base.</li> <li>Code-approved thermal barrier installed between insulating nail base and interior space.</li> </ul>



**2.05 Hunter Panels Foam Sheathing Continuous Insulation Air and Water Resistive Barriers for Above Grade Exterior Walls**

Application	Main Products	Assembly Description
Reinforced Foil-Faced Polyiso with WRB Tape and Flashings	Polyiso Foam Sheathing: <b>XCI Foil (Class A)</b>  WRB Tape: <b>Foil-GRIP 1402</b>  WRB Flashing: <b>Aluma-GRIP 701</b>	<ul style="list-style-type: none"> <li>• Polyiso foam sheathing boards fastened to structure.</li> <li>• WRB tape installed over board joints, WRB flashing installed over openings, corners and terminations.</li> <li>• Code compliant exterior cladding system fastened to structure through polyiso foam sheathing.</li> <li>• Code-approved thermal barrier installed between polyiso foam sheathing and interior space</li> </ul>

**2.06 Insulfoam Expanded Polystyrene (EPS) Foam Sheathing Continuous Insulation Air and Water Resistive Barriers for Above Grade Exterior Walls**

Application	Main Products	Assembly Description
Poly-Faced EPS with WRB Tape and Flashings	EPS Foam Sheathing: <b>R-Tech</b> <b>or</b> <b>R-Tech Platinum</b>  WRB Tape and Flashing: <b>PolyGuard 136</b>	<ul style="list-style-type: none"> <li>• EPS foam sheathing boards fastened to structure.</li> <li>• WRB tape installed over board joints, WRB flashing installed over openings, corners and terminations.</li> <li>• Code compliant exterior cladding system fastened to structure through EPS foam sheathing.</li> <li>• Code-approved thermal barrier installed between EPS foam sheathing and interior space</li> </ul>

**2.07 Carlisle WIP Self-Adhered Underlayment Air, Water and Vapor Barriers for Steep Slope Roofing**

Application	System Products	Assembly Description
High-temperature resistant self-adhered sheet with textured facer for non-slip surface. Installed over roof sheathing, on steep slope roof.	<b>WIP 300 HT</b>	<ul style="list-style-type: none"> <li>• 40-mil (1mm) self-adhered sheet membrane bonded to roof sheathing.</li> <li>• Roof covering fastened through membrane to sheathing or structure.</li> </ul>

**2.08 Versico Roofing Systems Air & Vapor Barriers for Low-Slope Roofs**

Application	System Products	Assembly Description
Self-adhered sheet air barrier, vapor barrier and temporary roof. Installed over fully supported deck substrate.	<b>VapAir Seal 725TR</b>	<ul style="list-style-type: none"> <li>• 40-mil (1mm) self-adhered sheet air and vapor barrier membrane bonded to prepared roof deck substrate.</li> <li>• Approved Versico Roofing Systems assembly installed over air and vapor barrier membrane.</li> </ul>
Self-adhered sheet air and vapor barrier. Installed directly over fluted metal deck.	<b>VapAir Seal MD</b>	<ul style="list-style-type: none"> <li>• 15-mil (0.4mm) self-adhered sheet air and vapor barrier membrane bonded to prepared roof deck substrate.</li> <li>• Approved Versico Roofing Systems assembly installed over air and vapor barrier membrane.</li> </ul>



## 2.09 Versico Roofing Systems Assemblies

Fully-adhered single ply roof membranes are installed with insulation, cover boards, adhesives, edging, flashings and other accessories as specified by Versico Roofing Systems in the respective roof system specification. EPDM, TPO and PVC single-ply roofing membranes applicable to the NVELOP specification are listed below:

	<b>Brand Name</b>	<b>Type</b>	<b>Color</b>	<b>Thickness</b>	<b>Application Method</b>
<b>EPDM</b>	VersiGard Non-Reinforced	Non-Reinforced	Black	60- and 90-mil	Adhesive
	VersiGard White	Non-Reinforced	White	60- and 90-mil	Adhesive
	VersiGard Reinforced	Reinforced	Black	60- and 75-mil	Adhesive or Mechanical Fasteners*
	VersiFleece AC EPDM	Fleece-Backed	Black	90- and 105-mil	Mechanical Fasteners*
<b>TPO</b>	VersiWeld	Reinforced	White, Tan or Gray	60- and 80-mil	Adhesive or Mechanical Fasteners*
	VersiWeld QA TPO	Reinforced	White	60-mil	Self-Adhering Sheet
	VersiFleece TPO	Fleece-Backed	White, Tan or Gray	100-, 115- and 135-mil	Low rise foam adhesive
	VersiFleece AC TPO	Fleece-Backed	White	120-, 135- and 155-mil	Hot asphalt or Mechanical Fasteners*
<b>PVC</b>	VersiFlex	Polyester Reinforced	White, Tan or Gray	50-, 60- and 80-mil	Adhesive or Mechanical Fasteners*
	VersiFlex FRS PVC	Fiberglass Reinforced	White, Tan or Gray	50-, 60- and 80-mil	Adhesive
	VersiFlex-E KEE HP	Polyester Reinforced	White, Tan or Gray	50-, 60- and 80-mil	Adhesive or Mechanical Fasteners*
	VersiFleece FRS PVC	Fleece-Backed	White, Tan or Gray	115- and 135- mil	Low rise foam adhesive
	VersiFleece KEE HP FRS	Fleece-Backed	White, Tan or Gray	105-, 115- and 135-mil	Low rise foam adhesive



## **PART III EXECUTION**

### **3.01 Pre-Installation**

- A. Ambient and substrate conditions shall be acceptable according to CCM product literature.
- B. Installers shall have full, safe access to the job and shall follow safety measures indicated on product SDSs and federal, state and local regulations.
- C. Establish appropriate storage and handling procedures for hazardous, freeze-sensitive or fragile materials.

### **3.02 Installation**

- A. Install products according to instructions in CCM literature and details.
- B. Provide tie-ins as shown in NVELOP details or in CCM-approved, project-specific details.
- C. Do not cover Work until it has been inspected and approved by the Design Professional or the Owner's Representative.

### **3.03 Repair and Protection**

- A. Protect Work from damage during construction
- B. Verify that penetrations made through thermal and moisture protection systems by other trades are sealed
- C. Do not allow products to be exposed for longer than recommendations in CCM literature.
- D. Repair or replace all damaged materials according to CCM's instructions.

**END OF SECTION**



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