



WATERPROOFING

MiraPLY™ -V with SeamLOCK™ Technology

Description

MiraPLY-V with **SeamLOCK™** Technology is a nominal 70 mil vertical grade, self-adhering, blindside waterproofing membrane. This membrane is a fully adhered composite comprised of a tough, durable and flexible 45-mil reinforced TPO backing with a 25-mil butyl alloy membrane/adhesive.

Typical Uses

MiraPLY-V with **SeamLOCK™** Technology self-adhering blindside waterproofing membrane is designed for waterproofing zero property line applications against soil retention systems.

Features and Benefits

- Seals around fasteners
- Tremendous impermeability and excellent resistance to most chemicals (i.e., acids and bases)
- Effective Radon barrier
- Bridges cracks in concrete
- Flexible for ease of installation

Warnings and Hazards

- Protect membrane from torch welding or cutting slag
- Do not leave exposed for more than 60 days
- Installation below 25°F require special tools and techniques. Consult Technical Services for details.
- Concrete forms must remain in place a minimum of 3 days after concrete is poured

Storage

Store in the original packaging until use. Protect from UV exposure and weather. Store between 40°F and 100°F.

Packaging

4' x 50' (1.22 m x 15.24 m) rolls. Weight: 83 lbs (37.65 kg)

Standards

- City of L.A. Approval: RR 25934

Typical Properties

Property	Method	Unit	Typical Value
TPO Thickness	—	mils (mm)	45 (1.14)
Butyl Alloy Thickness	—	mils (mm)	25 (.64)
Thickness per ASTM D 5147 across sheet	ASTM D1970	mils (mm)	70 (1.78)
Water Vapor Transmission	ASTM E96 (Water Method)	perms	0.090
Tensile Strength ¹	ASTM D882	psi	1,500
300% Modulus ¹	ASTM D412	psi	± 10%
Lap Seam 90° T-Peel	ASTM D1876	pli.	>5.0
Elongation @ Break @ 23°C (Die C) ¹	ASTM D412	%	500
Flexibility Temperature @ -29°C (-20°F) ¹	ASTM D1970	pass/fail	No Cracking @ -29°C (-20°F)
Hydrostatic Pressure Resistance	ASTM D5385	ft.	>231 ft. (100 psi)
Peel Strength Over Poured Concrete	ASTM D903	pli.	>5.0
Puncture Resistance Load at Puncture	ASTM E154	lb.	300
Tear Strength of Vulcanized Rubber and Thermoplastics Die C ¹	ASTM D624	psi	250
Soil Decay Testing-E 96 Permeance	ASTM E154		Pass
Soil Decay Testing-Weight Loss	ASTM E154		Pass
Lateral Water Migration Resistance ²	ASTM D5385 modified		Pass at 100 psi (231 ft) of hydrostatic pressure

¹Data Listed according to Machine Direction criteria where applicable

²Lateral water migration resistance test is performed by casting concrete against butyl side of membrane with a hole and applying a hydrostatic head pressure with water. This test measures the resistance of lateral water migration between membrane and concrete.

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Accessories

Carlisle Coatings & Waterproofing offers a wide range of accessories to accommodate all application requests.

MiraPLY-V with SeamLOCK™ Technology Installation

Start the installation at one corner of the building. Unroll the first sheet of MiraPLY-V with **SeamLOCK™** Technology and install it square/parallel to building wall centered in the corner with the TPO side facing the MiraDRAIN attached to the soil retention system (lagging, sheet pile, shotcrete, etc.) and the adhesive/release liner facing out. Mechanically fasten the membrane vertically, use fasteners with washer heads that are compatible with the substrate. Ensure MiraPLY-V with **SeamLOCK™** Technology is not bridging or wrinkled and tight to the corner with no seams in the corner. Install an adequate number of fasteners across the top of the MiraPLY-V with **SeamLOCK™** Technology to support and keep the membrane tight against the substrate without wrinkles and blousing until concrete is poured. Walls higher than 8'-0" require fasteners in the field of the MiraPLY-V with **SeamLOCK™** Technology membrane as necessary to keep membrane tight to wall without wrinkles and blousing (not including fasteners at the perimeter). Fasten perimeter edges of MiraPLY approximately 12" on center and a minimum of 6" from the edge. Caution – over driven fasteners can cause stress in the membrane and seams. Unroll the next sheet of MiraPLY-V with **SeamLOCK™** Technology and align parallel to and overlap the preceding roll of MiraPLY-V with **SeamLOCK™** Technology 3" and a minimum 3" end overlap. Stagger end laps. Ensure that the membrane lays flat and no openings are visible. At side laps, simultaneously remove the release liner on the factory applied tape and pre-primed strip mating the two sheets together. At end laps, remove release liner at seam area and apply MiraPLY Seam Tape positioned in the lap area. Lap area shall be rolled with a hard rubber roller using firm hand pressure. Leave plastic release liner on MiraPLY-V with **SeamLOCK™** Technology until ready for concrete pour or placement of rebar. Cover fasteners with a 6" x 6" piece of MiraPLY Seam Tape or MiraPLY Detail Tape.

MiraPLY Repair

Inspect the MiraPLY-V with **SeamLOCK™** Technology membranes for damaged areas before placement of rebar or concrete. The membrane should be cleaned with a cloth dampened with Weathered Membrane Cleaner and then allowed to dry. Repair slices, cuts and small punctures (½" or less) with MiraPLY Detail Tape.

Repair larger areas with a piece of MiraPLY extending beyond damaged areas by approximately 6" in all directions. Remove release liner of MiraPLY extending beyond the perimeter of the repair patch, then position patch on damaged area. Roll patch with a hard rubber roller using firm hand pressure.

Concrete Placement

CCW recommends that the concrete should be installed within 60 days of membrane installation. For shotcrete placement, refer to CCW Technical Bulletin "*MiraPLY Waterproofing – Use with Shotcrete Foundation Walls*" for more information.

Technical Note

Refer to CCW Technical Bulletin "*MiraPLY Waterproofing – Best Practices and Jobsite Requirements*" for more information.

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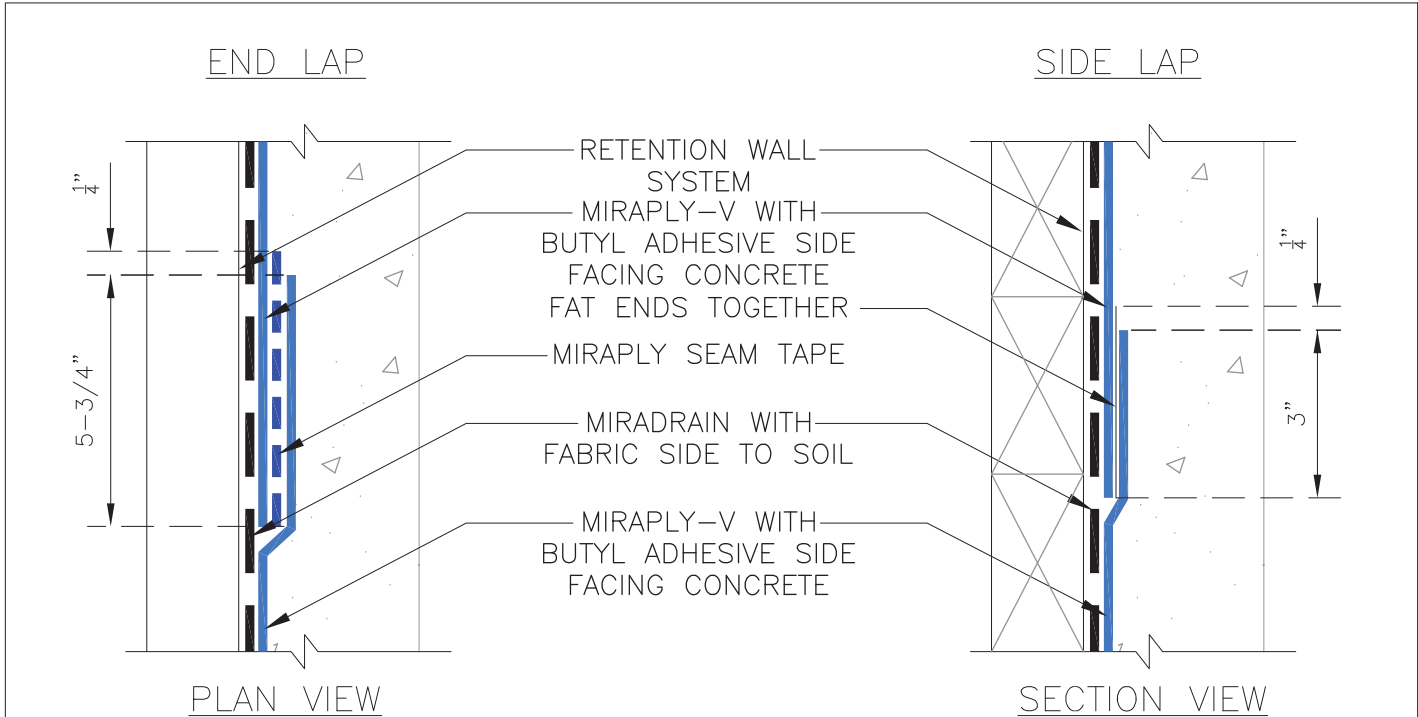
Limited Warranty

Carlisle Coatings & Waterproofing Incorporated (Carlisle) warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Carlisle materials prove to contain manufacturing defects that substantially affect their performance, Carlisle will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Carlisle with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. Carlisle specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Carlisle's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Carlisle material in question.

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End Laps and Side Laps (MP-92)



NOTES:

1. For Side Laps, install sheets of MiraPLY-V with a minimum 3" side overlap with 1/4" of exposed adhesive. Ensure the membrane lays flat and no openings are visible. Stagger end laps. Remove the release liners on the Miraply Seam Tape, for end lap, and Factory Applied Tape (FAT) mating the two sheets together. After the seam is fully constructed, roll the seam with a hard rubber roller.
2. Refer to Detail Drawing MP-93 to seal "T" Joints.
3. Refer to Technical Data Sheets for additional information.

DETAIL IS INTENDED TO BE A GUIDE FOR WATERPROOFING INSTALLATION ONLY.

MiraPLY™ BLINDSIDE WATERPROOFING

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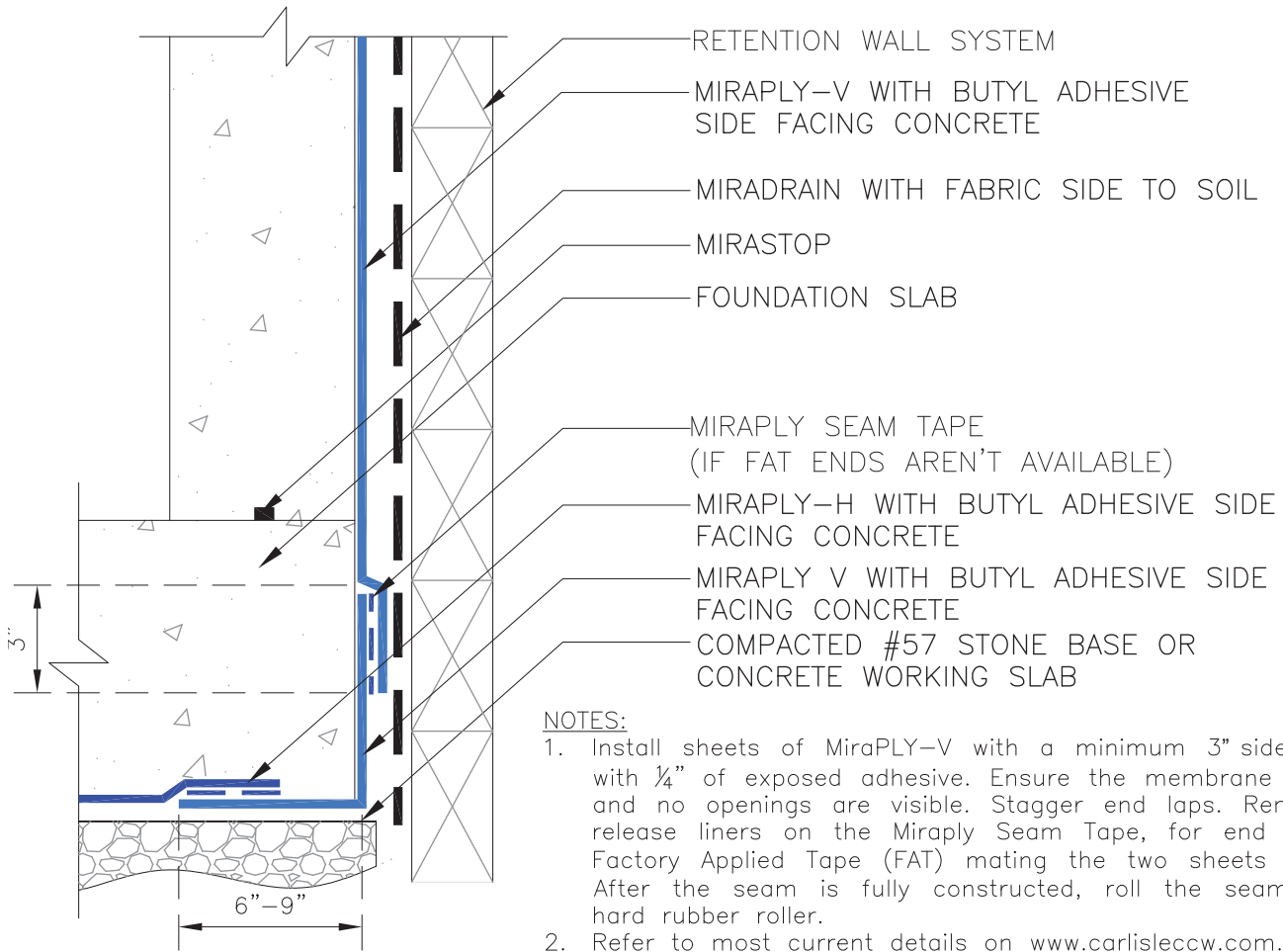
MP-92

MIRAPLY-V END AND SIDE LAP

WATERPROOFING

MiraPLY™-V with SeamLOCK™ Technology

Vertical Installation (MP-109)



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MP-109

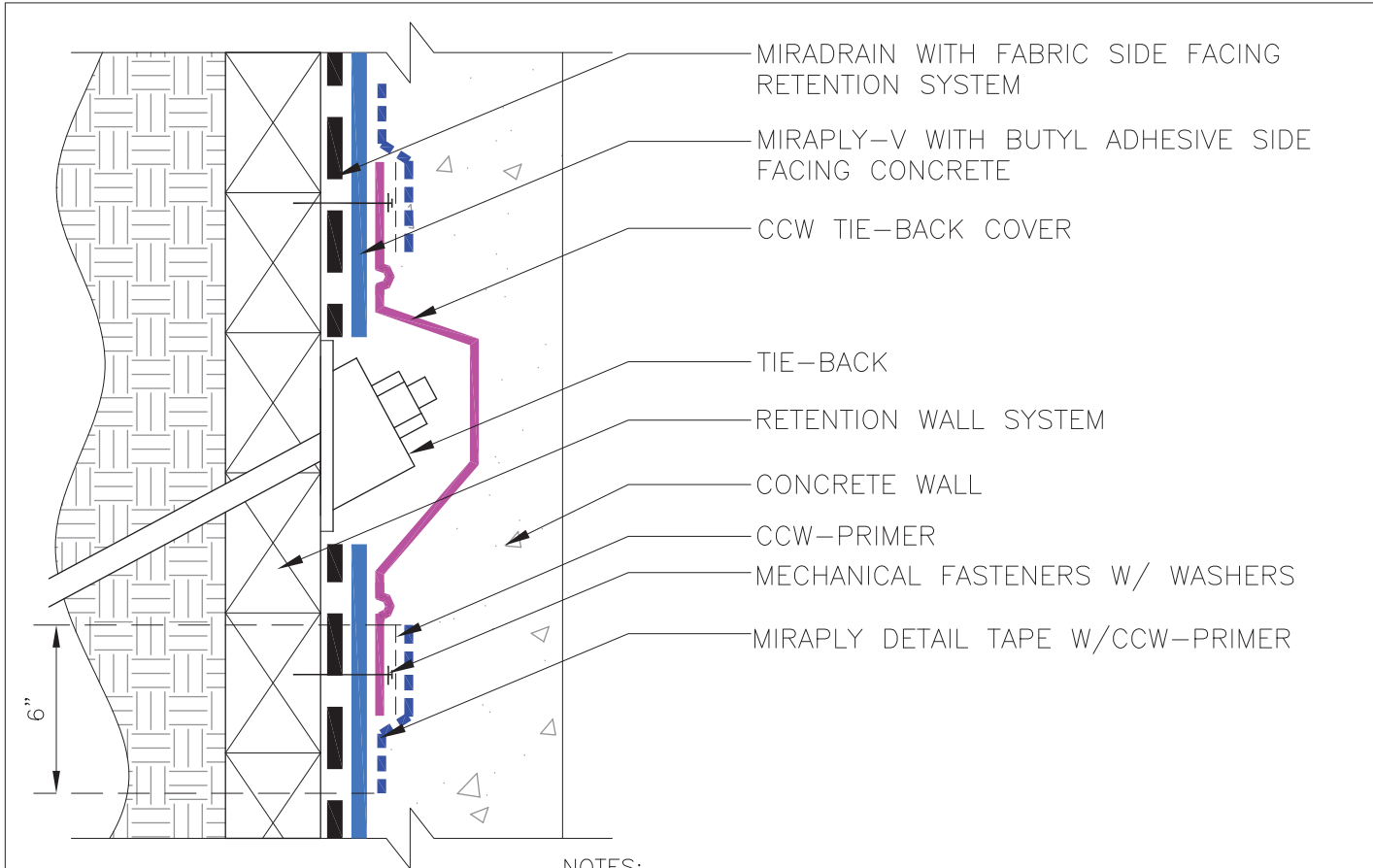
MiraPLY™ BLINDSIDE WATERPROOFING

MIRAPLY-H TO MIRAPLY-V
FOUNDATION TIE-IN

WATERPROOFING

MiraPLY™-V with SeamLOCK™ Technology

Tie-Back Cover (MP-10)



NOTES:
1. Refer to Technical Data Sheets for additional information.

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MiraPLY™ BLINDSIDE WATERPROOFING



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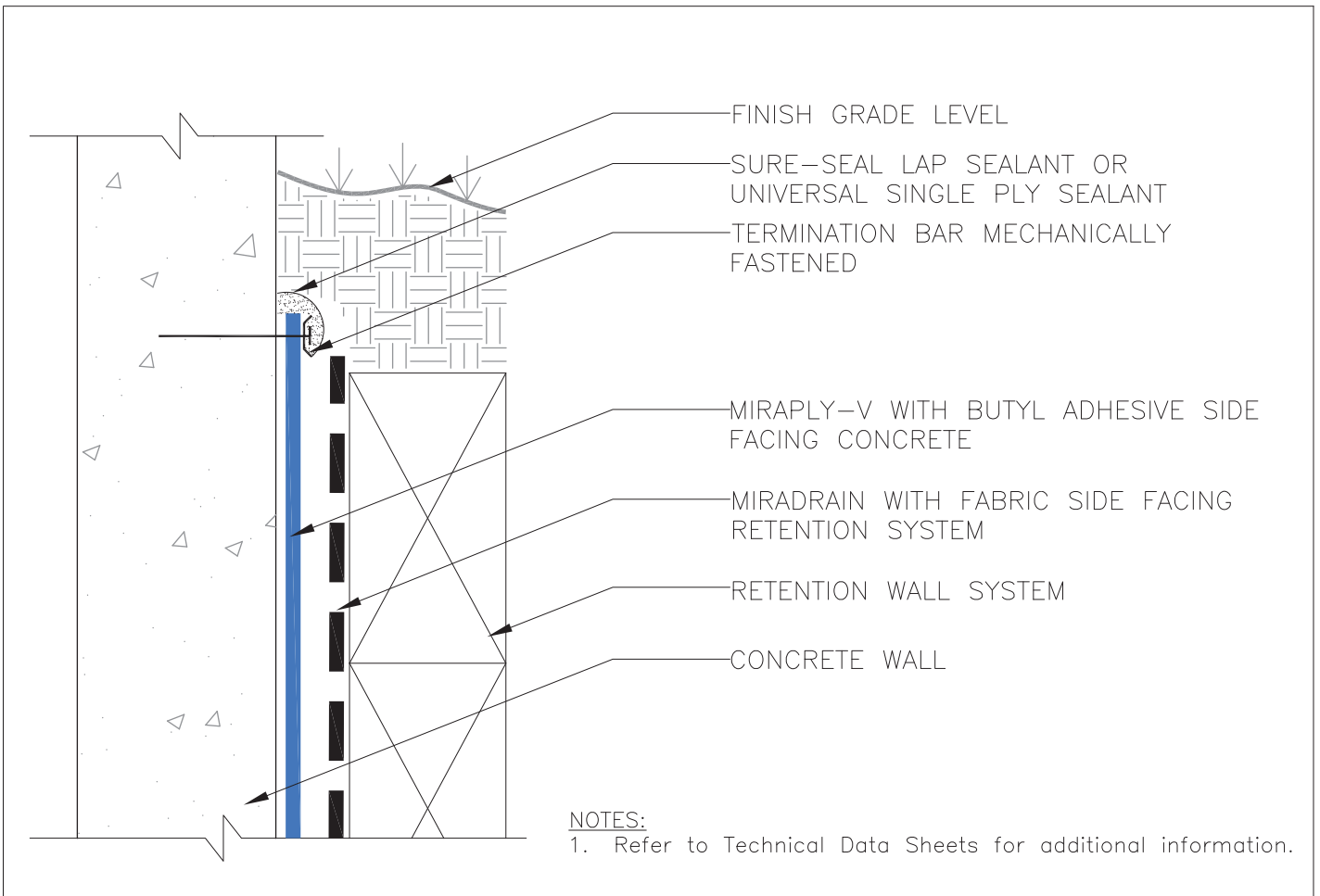
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MIRAPLY-V TIE-BACK COVER

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Below Grade Termination (MP-70)



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MiraPLY™ BLINDSIDE WATERPROOFING



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MP-70

BELOW GRADE TERMINATION