

DEC-TECHNICAL BULLETIN



Bulletin No: TB004 Version: v.02

Effective Date: 2018-10-16

Subject: BITUMINOUS PRODUCTS COMING IN CONTACT WITH DEC-TEC MEMBRANES

- Product Pre-Installation Installation Repair Maintenance Other
- External Internal Use Internal Use Only

Target Audience: All

Reason for Bulletin: The purpose of this bulletin is to provide information regarding the incompatibility of bituminous products and PVC.

Issue: Brown to black streaking and staining can occur when bituminous and or asphaltic building products come in contact with Dec-Tec PVC membranes.

Examples:



Dec-Tec PVC Membrane



Other's PVC Membrane

Why this is happening: Bituminous based products, asphalt, coal, tar, heavy oils, roofing cements, creosote, and some preservative materials are incompatible with Dec-Tec PVC membranes. In fact, the same result can be expected with any brand of single ply PVC decking membrane.

Self-adhering, aka peel and stick, membranes that are created for building envelope waterproofing, are typically constructed of rubberized asphalt or are butyl based and are not compatible with PVC decking membranes.

It is a common oversight, usually with good intention, that the self-adhering waterproofing asphaltic based membrane is lapped over the PVC decking membrane along the vertical transition. Logic suggests this is a proper transition detail that does not allow for water to penetrate through. Rather water would run over the lap and out onto the deck surface and away from the building.

With the overlap in place, and the incompatibility of the two products, given enough heat outside it will cause the asphaltic backing on the waterproofing peel and stick membrane to melt away from the membrane and streak down the PVC membrane.

When the asphaltic backing comes in contact with the PVC membrane, it is absorbed into the membrane causing accelerated plasticizer migration as well as brown to black streaking and staining of the membrane.

How to prevent this from happening: Create a 'bond breaker' between the asphaltic membrane and the PVC membrane. This is achieved via one of the following strategies, but not limited to:

- 1.) Utilizing aluminum foil tape, straddle it over the upper edge of the PVC membrane that is to be a minimum of 6" up the vertical wall. When straddling it, half the width of the aluminum foil tape should be on the PVC membrane, and half should be on the siding substrate which, in most cases, is OSB board. Then, bring your asphaltic waterproof membrane right to and on the aluminum foil tape which is over the PVC membrane. Using a minimum 4" wide aluminum foil tape is suggested.
- 2.) Utilizing a thin gauge flat metal strip, mechanically fasten it into the siding substrate where you would see it straddle over the upper edge of the PVC membrane that is to be a minimum of 6" up the vertical wall. When straddling it, half the width of the thin gauge flat metal strip should be on the PVC membrane, and half should be on the siding substrate which, in most cases, is OSB board. Then, bring your asphaltic waterproof membrane right to and onto the thin gauge flat metal strip, ensuring to cover the fasteners used to hold the strip, which is over the PVC membrane. Using a minimum 4" thin gauge flat metal strip is suggested.

Solution: How to repair the streaking:

GOOD: The asphaltic backing that is streaking into and onto the PVC membrane cannot be completely cleaned away. It may be possible to carefully wipe clean the majority of the streaking bituminous product but once the stain is noticeable, it is usually too late and the stain will persist to some extent. The end result will be a brown stain on the PVC membrane. It may or may not worsen with more asphaltic streaking to come from behind the siding. In this event, the property owner needs to weigh risk and reward with respect to just leaving it be, and / or employing a more invasive repair strategy. It is important to note that any and all cleaners can be tried at the owner's risk. However, most cleaners used to clean bituminous and or asphaltic products are aggressive and there is a very high likelihood of the cleaner directly affecting the Dec-Tec PVC membrane adversely by creating discoloration, pattern distortion, and membrane degradation.

Over time, Dec-Tec is aware of contractors who have chosen to directly install a matching piece of Dec-Tec membrane directly over the affected areas after thoroughly cleaning the area to the best of their ability. Dec-Tec does not actively endorse this method of repair, because there is no guarantee the affected areas will not continue to directly affect the new piece of membrane in direct contact with the affected area. Although it is a plausible solution, if it is decided upon, it is strictly a solution where the risk and reward are born between the installer and property owner.

BETTER: This method sees the siding removed to try and assess the potential for additional streaking of the asphaltic membrane. Then one would clean it as best as possible. Depending on the severity of the streaking, one could mechanically install a plywood facer board over top of the PVC membrane and streaking issue. In matching membrane, fully adhere the membrane to the plywood facer board and thermally heat weld the membrane to the existing Dec-Tec PVC membrane on the horizontal surface. Note that the membrane must overlap the existing membrane by 2". When complete, re-install the siding to complete the finished look.

Alternatively, Dec-Tec's Dec-Clad PVC metal in an appropriate color choice could be custom cut and bent in lieu of the plywood facer board, and mechanically fastened in over the affected, and cleaned, area. Then, using a matching piece of Dec-Tec membrane, thermally heat weld the membrane to the Dec-Clad PVC metal. Again, the

membrane must overlap the existing membrane by 2". When complete, re-install the siding to complete the finished look.

BEST: This method sees the siding removed by cutting away around all the affected areas and stripping out the Dec-Tec PVC membrane. When this has been done in the past, the substrate, interestingly enough, has not been affected by the bituminous streaking because the Dec-Tec PVC membrane has protected it. Therefore, it would be acceptable to strip in a new, matching piece of Dec-Tec PVC membrane directly over the cut out area, and have the membrane overlap onto the existing membrane by 2". The membrane would be fully adhered into place using the same adhesive as previously used (either Dec-Tec WBA 100 or Dec-Tec SBA 100R or Dec-Tec SBA 200), then the overlapping pieces would be thermally heat welded into place.

Dec-Tec currently represents the non-compatibility of bituminous products via the following methods:

- 1.) Dec-Tec's Warranty Document (DTW-2018-v.01), clearly states the following under section 6.):
This warranty excludes:
 - *Any damage to the Dec-Tec membrane caused by Acts of God, fortuitous events, settlement distortion, failure, cracking or movement of deck, wall or foundation of the building; any damage by traffic on the deck or by impact of foreign objects; **contamination of the membrane by corrosive chemicals, oils and greases, or any misuse, neglect or improper storage or handling of the Dec-Tec membrane;***
- 2.) Dec-Tec's Quick Reference Installation Guide clearly states under the tenth bullet:
 - ***Do not allow Dec-Tec membrane to come into contact with any incompatible materials, such as: bituminous based roofing and waterproofing products, oils, solvents, etc.***
- 3.) During Dec-Tec Professional Trainings we verbally warn of the non-compatibility during the theoretical and practical sessions.
- 4.) Dec-Tec TB004 (this Technical Bulletin).

If you have any questions concerning this bulletin, please contact Dec-Tec, Technical Support at 1-866-461-3914.

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