Siplast Modified Bitumen and Single Ply Roof Systems

Repair Guide



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Preliminary considerations

This manual has been written for Siplast Select Contractors to provide step-by-step instructions for performing repairs and other related work on Siplast guaranteed roof systems. As our designated repair contractor, adhering to the following guidelines will ensure that your invoices for warrantable repairs are processed promptly while helping us preserve the building Owner's roofing investment.

Reporting Claims

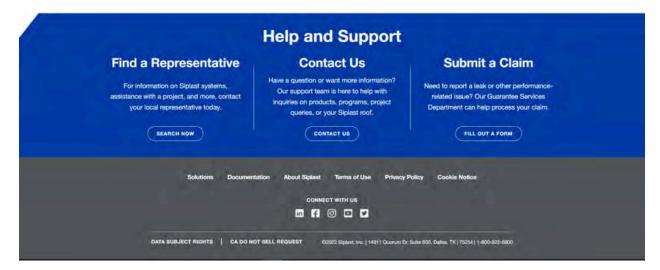
Please note, we ask that all performance-related claims be reported to Siplast immediately. If the building Owner contacts your company directly to report a performance related concern, please report the information to Siplast Guarantee Services, or ask the Owner's representative to do so. Claims can be reported through the following means:

Phone number: 800-922-8801, select option 3.

or

Website: https://www.siplast.com/

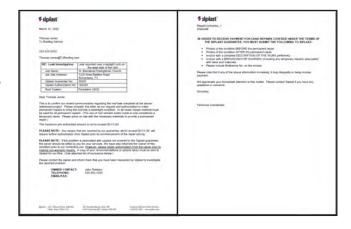
(Go to the bottom of the home page to select our Submit a Claim Form)



Coverage

Prior to performing work on a Siplast-roof, it is important to confirm the status and type of guarantee or warranty coverage. For claims on Siplast guaranteed roof systems, the repair contractor should confirm approval by Siplast before investigating or performing repair work. Approval must always be authorized by a signed proposal, or by means of an investigation request letter.

(See adjacent sample)



Materials

We intend for permanent repairs to be made during the initial investigation. Please confirm the Siplast roof system type from our request letter, or by contacting Siplast Guarantee Services, and take the appropriate materials and tools to perform a permanent repair for most common performance issues. Notify the Siplast Guarantee Services Representative if materials are not available on-hand.

Inspection

Upon inspection, if there is any question whether a condition may be covered under the terms of the guarantee, please refer to the list of exclusions contained at the end of this document, or contact a representative of Siplast Guarantee Services while on site for further direction.

Likewise, if it is determined that the extent of a repair covered under the Siplast guarantee will exceed our preauthorized amount, or require special consideration, please contact Siplast in advance of performing any further roofing work. If possible, please contact a representative of Siplast Guarantee Services while on site for further direction.

Repair Considerations

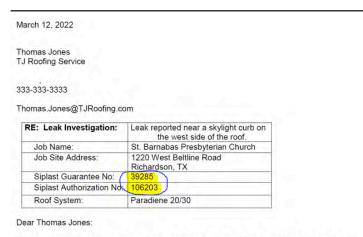
For repair-related conditions that are covered under the terms of the Siplast Guarantee, please follow the guidelines outlined in the following section and as indicated on Siplast's request letter.

Please note, Siplast requires photos of both the BEFORE and AFTER condition of any repair covered under the terms of our guarantee. The before and after photos must be submitted with the contractor's invoice in order to be processed for payment.

For repair items not covered by the Siplast guarantee, or for general maintenance considerations, please negotiate directly with the Owner's authorized representative and confirm their agreement to pay for the repair prior to performing any work. (See Section III for examples of excluded repair conditions.)

Invoicing

For repairs that have been approved for payment by Siplast, please e-mail the invoices along with the before and after photos, to the Siplast Guarantee Services representative who sent the original request letter. Please include the Guarantee # and Authorization # located on the request letter. Referencing to these two numbers on invoices will help prevent delays in processing.



This is to confirm our recent communication regarding the roof leak complaint at the abovereferenced project. Please consider this letter as our request and authorization to make

Permanent Repair Guidelines – Modified Bitumen Systems

In the majority of cases, most leaks can be addressed with permanent repairs during the initial inspection. It is important to understand that Siplast does not intend to have "temporary" repairs performed, which would involve a second trip for a permanent repair. Please try to arrive for the initial leak investigation with the appropriate materials, equipment, and personnel to perform permanent repairs. In the event that a permanent repair condition requires more extensive work than can be performed with the permanent repair materials on hand, then a temporary repair may be made. In all other cases a "temporary repair" may only be performed with authorization from Siplast as part of an emergency leak response.

The following photo section provides examples of permanent repairs according to Siplast standard specifications for several common performance issues.

Loose Lap

Most loose laps can be easily resealed without cutting.

Lap Repair with Sealant



Loose side lap.



Use Siplast PS-209 or PS-715 NS Sealant to re-adhere open laps.



Use a clean trowel or roller to press the lap down and ensure full adhesion.

Lap Repair with Adhesive



Alternatively, PA-1021 Plastic Cement or SFT Cement may also be considered.



Use a clean trowel or roller to press the lap down and ensure full adhesion. Apply granules over bleed-out.

Lap Repair with Hand Torch



Torch-grade products can be re-adhered using a hand-torch and trowel.



Use a clean trowel or roller to press the lap down and ensure full adhesion.

Lap Repair with Leister Hot Air Gun



Laps can also be re-adhered using a Leister gun with a flat, 3-inch nozzle.

Fishmouth

Larger openings at laps may require cutting and re-adhering the loose membrane plies.



"Fishmouth" at side lap.



Starting at the open lap, use a hook blade to cut the fishmouth open until full adhesion to the underlying base ply is encountered.



Open the loose materials and allow any moisture to fully dry.



Lay one side of the loose material down and then lap the adjacent side of loose membrane over it. Using the underlying lap of loose material as a template, carefully cut away any overlapping membrane, so that the loose materials lay flat and butt each other at the cut.



Adhere the loose membrane using PA-1021 Plastic Cement or SFT Cement. Ensure the membrane lays flat with the edges butting at the cut.



Apply PA-1021 Roofing Cement or SFT Cement to cover an area that that extends a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.



Cut and apply a patch of Paradiene 30 FR to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.



Gently apply light pressure evenly across the surface area of the patch to provide full adhesion. Broadcast granules at bleed-out.



For repairs using torchapplied products, prepare granule surfaces by heating and embedding the granules into the warmed membrane bitumen using a trowel.

Alternatively, granule surfaces can be primed using PA-1125 or PA-917 Primer. Double prime granule surfaces to create a smooth substrate.

The patch area must extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.



Cut and apply a patch of Paradiene 30 FR TG to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.

Base Flashing Repair (puncture/delamination)



Damaged/punctured Veral flashing membrane.



Using a torch, carefully heat and remove the foil surfacing to expose the underlying bituminous membrane to receive the repair patch.







Apply a patch of Paradiene 20 TG to extend 3 inches in all directions from the damage/puncture.



Apply the new flashing membrane to extend from lap to lap.



Base Flashing Repair (Blister)

Please note that the Siplast guarantees are "leak free" guarantees and do not cover cosmetic issues such as blisters. Siplast may choose to authorize blister repairs



Blister in the Veral flashing membrane.



Remove any existing coping; or lift any existing counter flashing to allow for fastening at the top of the new flashing membrane.



Prepare Veral foil-surfaced base flashing for patching by gently scoring the foil with a utility knife or trowel. USE EXTREME CAUTION TO AVOID CUTTING THROUGH THE FOIL INTO THE UNDERLYING BITUMINOUS MEMBRANE.

on a case-by-case basis. Please contact Siplast Guarantee Services for approval prior to performing the following repair procedure.



Using a torch, carefully heat and remove the foil surfacing to expose the underlying bituminous membrane to receive the repair patch.



Cut open any loose materials and allow any moisture to fully dry.





Re-adhere loose materials using a torch or a Siplast approved adhesive. NOTE: For non-torch application, SFT Cement is required for foil-surfaced Veral flashing membrane. PA-828 Flashing Cement is only approved for granule-surfaced flashing membranes.



Fasten the top of the new flashing piece on 9-inch centers.



Torch apply the new flashing membrane to extend the full flashing height. (Consider a 2-piece flashing application where the flashing height exceeds 3 feet.) NOTE: For nontorch application, SFT Cement is required for foil-surfaced Veral flashing membrane PA-828 Flashing Cement is only approved for granulesurfaced flashing membranes.



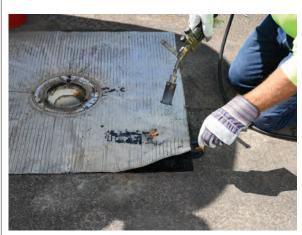
Reinstall the coping/counter flashing.

Internal Drain Repair

Repairs at roof drains often involve plumbing issues, such as a leaking drain bowl or piping; or maintenance related items, such as loose clamping ring bolts, which are not covered under the terms of the Siplast Guarantee. Prior to performing a repair at an internal drain, please contact Siplast Guarantee Services for further direction.



Roof drain flashing in need of reworking.





Remove the strainer, clamping ring and delaminate any aluminum foil surfacing from the drain sump flashing (if applicable).



Cut and remove any bituminous roof membrane to be flush with the top edge of the drain bowl.



Abrade the surface of PVC drain bowls with sandpaper and abrade metal drain bowls using a grinder and grinding wheel down to "bright white" metal. Then wipe the surface of the drain bowl using Pro Prep and allow to dry a minimum of 20 minutes.



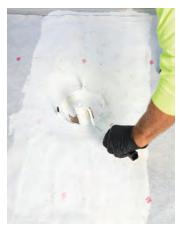


Place tape to mark the outer edge of the precut Pro Fleece pieces. Leave a maximum 1/4-inch gap between the tape and edge of the fleece for termination of the Parapro Flashing Resin. Trim the fleece as necessary to properly fit the drain bowl.





Remove the fleece. Catalyze, mix and apply the base coat of Parapro Flashing Resin as specified in the Siplast Parapro 123 Flashing Installer's Guide.



Set the pre-cut Pro Fleece pieces into place and apply Parapro Flashing Resin to all areas, including any overlapping fleece.



Apply the top coat of Parapro Flashing Resin as specified in the Siplast Parapro 123 Flashing Installer's Guide.



Remove the tape at resin termination edges before curing occurs, while the resin is still in a liquid state.



Scupper Repair



Unadhered flashing membrane at scupper flashing.



Prepare Veral foilsurfaced base flashing for patching by gently scoring the foil with a utility knife or trowel. USE EXTREME CAUTION TO AVOID CUTING THROUGH THE FOIL INTO THE UNDERLYING BITUMINOUS MEMBRANE.



Using a torch, carefully heat and remove the foil surfacing to expose the underlying bituminous membrane to receive the repair patch.



Re-adhere and/or patch any loose materials as necessary using a Paradiene 20 or Pro Base membrane and compatible application method.



Prepare all surfaces to receive the Parapro 123 Flashing System in accordance with the preparation guidelines set forth in the Parapro 123 Flashing System Installer's Guide.



Flash the scupper opening using the Parapro 123 Flashing System extending the new flashing so that it terminates inside the metal scupper box.



Interply Blister in Field of Membrane (non-guaranteed)

Please note that the Siplast guarantees are "leak free" guarantees and do not cover cosmetic issues such as blisters. Siplast may choose to authorize blister repairs on a case-by-case basis. Please contact Siplast Guarantee Services for approval prior to performing the following repair procedure.



Interply blister in field of membrane.



Use a hook blade to cut the blister open in an X-pattern. Pull back loose membrane until full adhesion to the underlying base ply is encountered.



Open the loose materials and allow any moisture to fully dry.





Adhere the loose membrane using PA-1021 Plastic Cement or SFT Cement. Ensure the membrane lays flat with the edges butting at the cut.







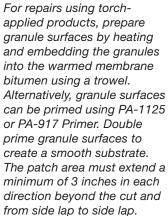
Apply PA-1021 Roofing Cement or SFT Cement to cover an area that that extends a minimum of 3 inches in each direction beyond the cuts and from side lap to side lap.



Gently apply light pressure evenly across the surface area of the patch to provide full adhesion.









Cut and apply a patch of Paradiene 30 FR to extend a minimum of 3 inches in each direction beyond the cut and from side lap

to side lap.

Cut and apply a patch of Paradiene 30 FR TG to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.

Interply Blister at Side Lap (non-guaranteed)

Please note that the Siplast guarantees are "leak free" guarantees and do not cover cosmetic issues such as blisters. Siplast may choose to authorize blister repairs on a case-by-case basis. Please contact Siplast Guarantee Services for approval prior to performing the following repair procedure.

Interply blister at side lap.





Use a hook blade to cut the blister open. Pull back loose membrane until full adhesion to the underlying base ply is encountered.







Adhere the loose membrane using PA-1021 Plastic Cement or SFT Cement. Ensure the membrane lays flat with the edges butting at the cut.



Apply PA-1021 Roofing Cement or SFT Cement to cover an area that extends a minimum of 3 inches in each direction beyond the cuts and from side lap to side lap.

Open the loose materials and allow any moisture to fully dry.



Cut and apply a patch of Paradiene 30 FR to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap. Place the selvage edge of the side lap to coincide with the existing finish ply lap.





Cut and apply a patch of Paradiene 30 FR to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap. Seal the lap over the selvage edge of the adjacent ply.



Gently apply light pressure evenly across the surface area of the patch to provide full adhesion.



For repairs using torchapplied products, prepare granule surfaces by heating and embedding the granules into the warmed membrane bitumen using a trowel.

Alternatively, granule surfaces can be primed using PA-1125 or PA-917 Primer. Double prime granule surfaces to create a smooth substrate. The patch area must extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.



Cut and apply a patch of Paradiene 30 FR TG to extend a minimum of 3 inches in each direction beyond the cut and from side lap to side lap.

Permanent Repair Guidelines – PVC and TPX Single Ply Systems

In the majority of cases, most leaks can be addressed with permanent repairs during the initial inspection. It is important to understand that Siplast does not intend to have "temporary" repairs performed, which would involve a second trip for a permanent repair. Please try to arrive for the initial leak investigation with the appropriate materials, equipment, and personnel to perform permanent repairs, and do not perform a "temporary repair" unless otherwise directed by Siplast as part of an emergency leak response.

The following photo section provides examples of permanent repairs according to Siplast standard specifications for several common performance issues.

Loose Lap

Most loose laps can be easily resealed for most Siplast Parasolo single membrane systems.

Loose side lap.





Dirt stains can be removed using an all purpose household cleaner. The membrane must also be prepared by cleaning wiping with Parasolo Membrane Conditioner.

Use a handheld hot air welder with an appropriate fitting to reseal the loose membrane lap.



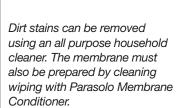


Use a handheld hot air welder with an appropriate fitting to reseal the loose membrane lap.

Puncture Repair (non-guaranteed)



Damaged/punctured Parasolo membrane.







Small punctures can often be patched with pre-cut Parasolo PVC Patches.

Typical Examples of Exclusions:

- 1. Pitch pans
- 2. Neoprene expansion joint
- 3. Splits at sheet metal joints
- 4. Punctures
- 5. Ponding water
- 6. Clogged drain

GUARANTEE EXCLUSIONS

The Siplast Guarantee does not cover leaks that result from either occurrences beyond the control of SIPLAST, INC. or mistreatment, both of which include, but are not limited to, the following:

- 1. Damage to the Roof Membrane caused by lightning, windstorm, hail, earthquake, tornado, hurricane, or similar unusual occurrences.
- 2. Damage to the Roof Membrane caused by any deliberate or negligent act in maintaining the roof.
- 3. Damage to the Roof Membrane caused by unauthorized repairs, or subsequent work on or through the roof done without prior written approval by SIPLAST, INC. of the methods and materials to be used.
- 4. Damage to the Roof Membrane caused by structural defects or failure of any substrate component, i.e., non-Siplast materials used as insulation or vapor retarder, including defects in design application of the substrate components.
- 5. Damage to the Roof Membrane caused by falling objects.
- 6. Damage to the Roof Membrane caused by movement of metal work used in conjunction with the Roof Membrane.
- 7. Damage to the Roof Membrane caused by installation of a sprinkler system, water or air conditioning equipment, radio or television antenna, framework for signs, water tower or other installation on the roof after the installation of the Roof Membrane without prior written approval by SIPLAST, INC. of the methods and materials to be used.
- 8. Damage to the Roof Membrane resulting from other than occasional traffic across its surface or from its use as a storage area or recreational surface or platform mechanical equipment of any type, or for any other similar purposes.
- 9. Damage to the Roof Membrane caused by a change in use of the building without prior written approval of SIPLAST, INC.
- 10. Damage to the Roof Membrane caused by ponding of water or other conditions resulting from improper drainage.
- 11. Damage to the Roof Membrane resulting from chemical attack or from other compounds demonstrated to be deleterious to the composition of the Membrane/System.
- 12. Damage to the Roof Membrane caused by moisture entering the roof membrane system through adjoining walls and wall copings, Roof Membrane terminations, roof penetrations or other adjoining building components, which are not waterproofed and detailed using approved Siplast materials, specifications, and recommendations.
- 13. Damage to the Roof Membrane caused by moisture entering the Membrane/System through moisture condensation resulting from building or roof system design flaws or similar conditions beyond the control of Siplast.



Siplast

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