

Sika Sarnafil

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WATERPROOFING TECHNICAL BULLETIN

#01-11

Date: March 29, 2011

To: Authorized Waterproofing Applicators
Sarnafil Sales Staff & Sales Representatives
Sarnafil Regional Technical Staff
Sarnafil Customer Service Staff
Sarnafil Services Staff
Sarnafil Marketing

From: Waterproofing Technical Department

Re: Single-Source Green Roof Warranty with LiveRoof® Prevegetated Modules

Sika Sarnafil has entered into an agreement with LiveRoof, a supplier of fully grown, prevegetated modules (also known as 'trays'), to offer single-source green roof warranty coverage. Projects utilizing LiveRoof prevegetated modules over Sika Sarnafil waterproofing systems are eligible for Sika Sarnafil's 'Single-Source Warranty for Green Roof Assemblies with Prevegetated Modules' upon its successful installation and completion. Green roofs with 'built-in-place' (i.e. planted or carpeted) vegetative covers will continue to be eligible for Sika Sarnafil's 'Single-Source Warranty for Green Roof Assemblies'.

Single-Source vs. Single-Source with Prevegetated Modules Warranty

The Single-Source for Green Roof Assemblies (built-in-place) and the Single-Source for Prevegetated Modules warranty language is very similar; however there are some differences because of the inherent differences in the respective technologies. The warranty language differences for each single-source warranty are summarized in Table 1 below.

Single-Source Warranty Fee

Single-Source for Green Roof Assemblies and Single-Source with Prevegetated Modules warranties are available for 5, 10, 15, and 20 year durations. The Single-Source warranty fees are found in the Sika Sarnafil Price List for Waterproofing



Sika Sarnafil, A Division of Sika Corporation, 100 Dan Road, Canton, MA 02021
Tel. 800-451-2504, Fax: 781-828-5365, www.sikacorp.com

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Membranes and Accessories. The Single-Source fee is the same for Green Roof Assemblies and Prevegetated Modules. The warranty fee is billed to the Sika Sarnafil Authorized Waterproofing Applicator (not the LiveRoof Elite Installer) so it must be included in the Sika Sarnafil Waterproofing Applicator bid proposal.

Single-Source Warranty Coverage

- Single-source warranties cover the performance of the waterproofing system and the prevegetated modules.
 - Sika Sarnafil will repair leaks originating from the Sarnafil waterproofing membrane or Sika Sarnafil waterproofing accessories.
 - Sika Sarnafil will warrant an 80% foliage cover rate.
- Single-source warranties include removal of the prevegetated modules to expose the waterproofing system in the event of a leak and repositioning of the disrupted prevegetated modules after leak repairs. Waterproofing Applicators who participate in the Single-Source warranty program must sign an Addendum to Sarnafil Authorized Waterproofing Applicator Agreement (see 'Sika Sarnafil Waterproofing Applicator Requirements' below). The addendum outlines the Applicator's responsibilities in the event of a leak in the Green Roof Assembly.

Single-Source Warranty Conditions and Limitations

- The Owner is required to maintain a Sika Sarnafil accepted Green Roof Maintenance agreement for the duration of the warranty or the warranty is voided. The first 2 years of maintenance is typically provided by the LiveRoof Elite Installer and is included in the installation contract.
- Single-source warranties are limited to the original cost of the green roof assembly.

Sika Sarnafil Waterproofing Applicator Requirements

In order to participate in the Single-Source program, the Sika Sarnafil Authorized Waterproofing Applicator must sign a Waterproofing Applicator Agreement Addendum prior to bid. Addendums were sent to all Sika Sarnafil Authorized Waterproofing Applicators in 2009. If you have not already signed an addendum, please contact your local sales representative or call the nearest Sika Sarnafil regional office for an addendum.



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LiveRoof Elite Installer Requirements

In order to participate in projects requiring a Sika Sarnafil Single-Source Warranty, a certified LiveRoof Elite Installer must be contracted to install the prevegetated modules. A list of LiveRoof Elite Installers is found at http://www.liveroof.com/installer_map.php. If you are interested in becoming a LiveRoof Elite Installer, please contact LiveRoof directly at 1-800-875-1392.

Sika Sarnafil Waterproofing System Requirements

Sika Sarnafil's green roof waterproofing specifications and quality assurance requirements apply to Single-Source green roof assembly projects utilizing LiveRoof prevegetated modules. Sika Sarnafil green roof specifications and details are found on our website at http://usa.sarnafil.sika.com/content/usa/sarnafil/en/solutions_products/technical-downloads/Waterproofing-Specifications.html.

Following are some important reminders.

1. Single-Source warranty projects are limited to extensive green roof applications having a maximum growth media depth of 6 inches.
2. Flashings must extend a minimum of 6 inches above the top of the growth media at all walls, curbs, and penetrations (this *isolation* distance is measured from the top of the soil to the lowest fastener/penetration, including that for counterflashing). The isolation distance may be reduced to 2 inches if there is a vegetation free zone at the flashings such as at fire breaks and border zones as described in ANSI/SPRI VF-1, External Fire Design Standard for Vegetative Roofs.
3. All conventional waterproofing assemblies require a coverboard between the insulation board and waterproofing membrane. The coverboard must be adhered or loose-laid over the insulation board depending on the waterproofing system design. Fasteners are not to be used directly under the waterproofing membrane.
4. Sloped applications may require supplemental stabilization measures for the prevegetated modules that may impact the waterproofing design and flashing details. Please contact your Sika Sarnafil representative regarding sloped applications.



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5. Grounding screen must be installed in conventional waterproofing system designs whenever the structural deck is non-conductive (e.g. wood, gypsum, Tectum, hollow core plank, etc.), or when the waterproofing system includes a vapor barrier over the structural deck.
6. The waterproofing system must be compatible with electronic leak detection (ELD) testing such as EFVM[®] (Electronic Field Vector Mapping). A compatible protection/drainage layer such as Geonet B or Drainage Composite 3811R must be specified over the waterproofing membrane to insure compatibility with the green roof assembly and leak detection testing. **PVC Protection Layer must NOT be installed over the membrane since it will interfere with the ELD testing.** Do not use any type of geotextile felt such as Sarnafelt NWP or Sarnafelt NWP HD. Geotextile felt products will remain wet and promote root growth that will impede drainage. The protection/drainage layer is typically installed by the LiveRoof Elite Installer.
7. Electronic leak detection (ELD) testing is required as the quality assurance method for all single-source projects. Full-time monitoring and/or a water test are not acceptable substitutes for ELD, but may be specified by the designer in addition to ELD.
8. A final inspection must be completed on the exposed membrane by a Sika Sarnafil Technical Representative prior to the installation of the protection/drainage layer and the prevegetated modules.
9. LiveRoof must submit a Notice of Completion to Sika Sarnafil indicating satisfactory installation of the prevegetated modules before Sika Sarnafil can issue the Single-Source warranty to the Waterproofing Applicator.

LiveRoof Prevegetated Module Requirements

LiveRoof technical requirements including guide specifications, details, installation guidelines and other related information can be found on their website at <http://www.liveroof.com/>. LiveRoof can be contacted directly at 1-800-875-1392.



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How Sika Sarnafil and LiveRoof Will Work Together

Single-source projects require a high degree of communication and cooperation between the manufacturers and contractors. Sika Sarnafil will work through its network of Authorized Waterproofing Applicators who have signed the Addendum as noted above. LiveRoof will work through its growers and Elite Installers. The prevegetated modules will be purchased by the LiveRoof Elite Installer directly from LiveRoof and will not be sold by Sika Sarnafil unless the project is managed by Sarnafil Services.

Flow chart 1 below illustrates how Sika Sarnafil and LiveRoof work together on projects starting at the design phase through the bid and award phase. During the design phase, the Sika Sarnafil sales representative and LiveRoof grower assist the designer with the project specifications and plant selection. A list of LiveRoof growers can be found at http://www.liveroof.com/grower_map.php. Once the project specifications are completed, the Sika Sarnafil Waterproofing Applicators and LiveRoof Elite Installers bid the project and the contracts are awarded.

Flow chart 2 continues the process through the installation phase and issuance of the warranty. The warranty issuance process is similar to other Sika Sarnafil waterproofing projects beginning with the Applicator's submittal of the Notice of Award (NOA) to the Sika Sarnafil regional office. Sika Sarnafil will review the NOA and issue an Acceptance Notice of Award (ANOA). The Sika Sarnafil waterproofing materials order can then be processed.

Once the Sika Sarnafil waterproofing system is installed, the Sika Sarnafil Waterproofing Applicator will arrange for the Electronic Leak Detection (ELD) test and final inspection of the waterproofing through Sika Sarnafil. The ELD test and final inspection of the waterproofing should be performed a few days prior to the LiveRoof installation to allow for any last minute punch list items and repairs. If there is a delay in the LiveRoof installation, the waterproofing Applicator must protect the waterproofing system and roof access should be limited to only the waterproofer to reduce the potential for damage by other trades. If other trades have access to the roof, the ELD test and final inspection must not occur until all work on the roof is complete and there is no traffic other than the Sika Sarnafil waterproofer or LiveRoof installer.

Once the ELD and final inspection are successfully completed, the LiveRoof installation begins. The LiveRoof Installer will register the project with LiveRoof and LiveRoof will notify Sika Sarnafil when the LiveRoof installation is complete. Sika Sarnafil will issue the Single-Source warranty.



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Table 1: Single-Source Green Roof Warranty Comparison

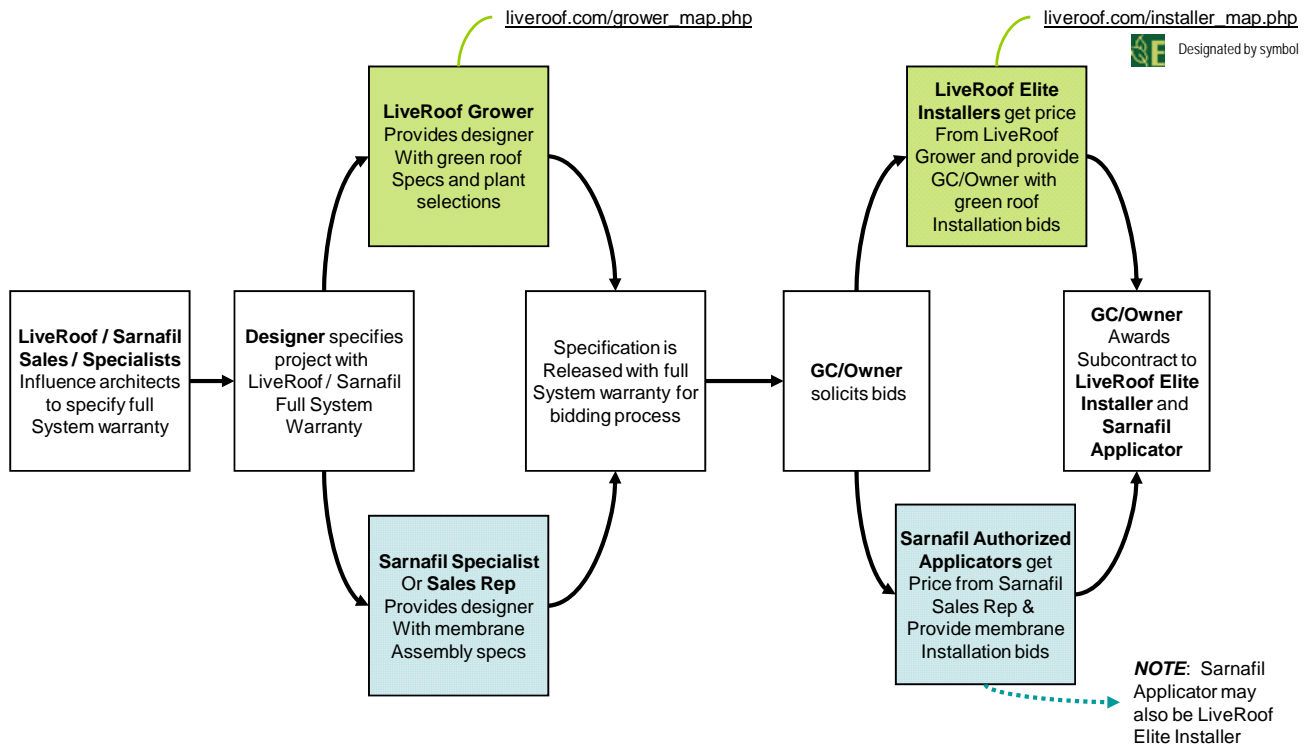
	Single-Source	Single-Source Prevegetated Modules (LiveRoof)
Foliage Coverage Rate	80% commencing 24 months after planting	80% when warranty is issued (Paragraph 2)
Annual Maintenance	'at least semi-annual' (2-4 visits depending on provider, Section 5 & 14)	'regularly scheduled' (4-6 visits or more, Section 5 & 14)
Terms, Conditions, Limitations (i.e. Exclusions)		<p>Additional exclusions include:</p> <ul style="list-style-type: none"> • fire (3c) • erosion (3c) • disease infestation (3d) • deicing materials (3j) • fertilizers (3j) • poor irrigation water quality (3p) • installation next to highly reflective surfaces without an irrigation system (3r) • exposure to heat below roof deck such as from steam or hot water pipes(3r) • insufficient drainage design (3r)



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Flow Chart 1: Design & Bidding



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Flow Chart 2: Installation & Warranty Issuance

