ROOFING
GREEN ROOF SOLUTIONS WITH Sarnafil®

BUILDING TRUST

Sika Sarnafil®.
THE ADVANTAGES ARE GROWING

AS YOU CAN IMAGINE, the addition of a green roof to an otherwise unused area on a building, is beneficial for the surrounding environment. Initial loss of "green" space and its inherent natural processes like photosynthesis are restored; now just a few stories higher. But green roofs also have other benefits that you might not be aware of.

STORM-WATER RETENTION
During heavy rainfalls, runoff from surfaces such as pavements and rooftops can cause serious problems such as sewer overflow and water pollution. Green roofs slow down the water flow by retaining up to 75% of the rainwater, thus alleviating the pressure on storm-water infrastructures.

REDUCING ENERGY CONSUMPTION
Green roofs are great insulators. They can reduce peak energy demand by lowering a building's cooling costs in the summer months and heating costs in the winter months.

REDUCING THE URBAN HEAT ISLAND EFFECT
More green roofs and fewer dark colored roofs equal a cooler city. Dark roofs retain heat while plants naturally cool their surrounding environments through evapotranspiration cycles. In cities where the ambient temperature can be up to 10 degrees hotter than the surrounding areas, green roofs can help bring the overall temperature down.

WATERPROOFING MEMBRANE PROTECTION
A green roof protects the waterproofing membrane from damaging UV rays, freeze-thaw cycling and repeated foot traffic, extending its lifespan. Some green roofs in Europe have lasted more than 40 years without being replaced.

IMPROVED AIR QUALITY
Green roofs filter air by absorbing and converting carbon dioxide to oxygen.

SOUND INSULATION
Soil and plants are an effective sound insulator.

AESTHETICS
Green roofs are visually stimulating and can make great areas for recreation and pleasure.

INCREASED PROPERTY VALUE
Installing a green roof can increase property value by providing a valuable building asset.


Thermal Bath, Bad Zurzach, Switzerland

ON THE LEFT:
Project: The Pulitzer Foundation for the Arts, St. Louis, USA
Design Architect: Tadao Ando Architect and Associates, Osaka, Japan
Landscape Architect: SWT Associates, St. Louis, USA
Waterproofing Installer: Bartch Roofing Company, Inc., St. Louis, USA
Sika Sarnafil®
Waterproofing System: Loosely Laid System, G476 Membrane
Project Size: 338 m²
Owner: Emily Rauh Pulitzer

Landesfachschule des Dachdeckerhandwerkes, Potsdam, Germany

Victorian Desalination Plant, Australia

"GREEN ROOFS ARE HEALTHY, SUSTAINABLE AND REGENERATIVE ROOF LANDSCAPES THAT CAN HELP PROTECT OUR ENVIRONMENT BY DIMINISHING THE DEVELOPMENTAL IMPACTS ON OUR COMMUNITIES."

Sika Sarnafil®. BECAUSE PERFORMANCE IS MANDATORY

WHY CHOOSE Sarnafil®?
Performance over time is the only true test of a waterproofing system's quality. Sika Sarnafil® has been waterproofing green roofs and other landscaped areas across Europe for over 40 years and in the United States for over 25 years. With close to 4 hundred million square metres of roofing and waterproofing membrane installed worldwide, architects, specifiers and building owners know they can depend on Sika Sarnafil® for proven products and system performance.

When you specify a Sika Sarnafil® Green Roof, you get more than watertight security; you get peace of mind knowing you made the right choice. The Sika Sarnafil® G476 membrane is specially designed for sub-grade environments, compounded to remain watertight in extreme conditions including constant dampness, ponding water, high and low alkaline conditions and exposure to plant roots, fungi and bacterial organisms.

EXTENSIVE AND INTENSIVE THERE ARE TWO GREEN ROOF CATEGORIES: EXTENSIVE AND INTENSIVE
Extensive green roofs are generally lower in weight and cost and require less plant maintenance. With only a few centimetres of soil, extensive green roofs typically support plants that are tolerant of high heat, drought, wind and frost like grasses, wildflowers and moss. Extensive roofs are often used in areas that will not be subject to regular traffic.

Intensive green roofs are generally heavier, cost more and require more maintenance. However, because the soil is deeper, intensive green roofs can accommodate trees, shrubs, bushes and vegetable gardens. It is not uncommon to see an intensive green roof used for recreational purposes.


Mercy Hospital – West Hospital, Cincinnati, OH, USA

EXTENSIVE (on the right)
- Growth medium 2.5-15 cm
- Lightweight 59-244 kg/m²
- Low growing plants
- Low maintenance
- Low water requirements
- Usually non-accessible
- Slopes up to 30 degrees

INTENSIVE (bottom)
- Growth medium 15 or more cm
- Heavier weight 244 or more kg/m²
- Trees, shrubs, gardens, and more
- Higher maintenance
- Irrigation usually necessary
- Designed for human recreation
- Only used on low slopes


Nursing home Les Terrasses de Bellevue, France

ON THE LEFT:
Project: St. Louis Children's Hospital, St. Louis, USA
Architect: Cannon Design, St. Louis, USA
Landscape Architect: Edaw Inc., Fort Collins, USA
Green Roof Contractor: McGrath and Associates Inc.,St. Louis, USA
Waterproofing Installer: Bi-state Roof Systems Inc., St. Louis, USA
Sika Sarnafil®
Waterproofing System: Adhered and Grid System, G476 Membrane
Project Size: 743 m²
Owner: BJC Health Systems

"WHEN YOU SPECIFY A Sika Sarnafil® GREEN ROOF, YOU GET MORE THAN WATERTIGHT SECURITY, YOU GET PEACE OF MIND KNOWING YOU MADE THE RIGHT CHOICE."

Sika Sarnafil®.
DESIGNED TO MEET YOUR NEEDS

Sarnafil® HAS GREEN ROOF systems for use on both concrete and metal deck applications. Sarnafil® provides the flexibility to choose the application that best fits your building's design criteria.

MORE SIKA Sarnafil® BENEFITS
Sarnafil's waterproofing membrane is specially designed for sub-grade environments. The G476 membrane is available to match your application, overburden type and specific project requirements. Highly puncture resistant, its bright orange color makes it easy to identify and inspect to maintain high levels of quality assurance and control during installation.

ROOT RESISTANCE
Many waterproofing membranes are not resistant to root penetration. They fail, often in five years or less, due to root infiltration into the field seams and flashings. Sarnafil® membranes are inherently root and algae resistant and require no additional barriers to be added to the system. Sarnafil® membranes have passed the most stringent European tests (German FLL Standards) for root resistance. The FLL standard test exposes the waterproofing membrane to 2 years of accelerated root growth.

HEAT WELDED SEAMS AND FLASHINGS
Faulty seams and details are a common source of leaks in green roofs. Some waterproofing membranes use sealants, adhesives or tapes to secure the seams, but because Sika Sarnafil® membrane is thermoplastic, seams and flashings are welded together using Sika Sarnafil® automatic hot-air welder, the Sarnamatic. When welded together, the sheets become one monolithic layer of material impervious to moisture infiltration.

"Sika Sarnafil® PROVIDES THE FLEXIBILITY TO CHOOSE THE GREEN ROOF APPLICATION THAT BEST FITS YOUR BUILDING'S DESIGN CRITERIA."


Nashville Music City Center, Nashville, USA

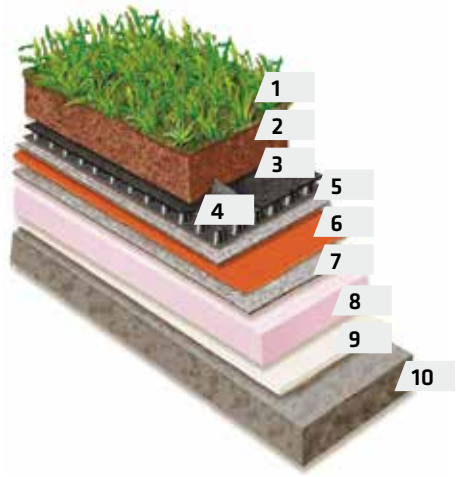
Sarnafil® MANAGEMENT

PROVEN MATERIALS
A high quality membrane is the key to any successful roofing or waterproofing project that demands absolute system integrity. With that in mind, Sarnafil® manufacturing process uses only the highest quality materials to produce a monolithic, nonlaminated membrane that offers excellent weatherablility and dimensional stability.

EXPERT ASSISTANCE
Our skilled technical experts make Sarnafil® stand apart from other manufacturers. We're involved at each major milestone – offering design assistance to architects and specifiers if needed, and training authorized applicators in the classroom and at the job site.

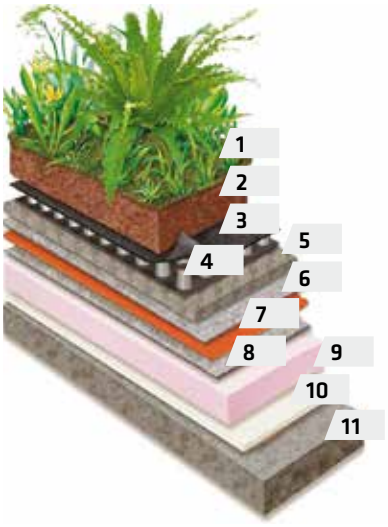
SKILLFUL WORKMANSHIP
Sarnafil® is only installed by a select group of trained, Certified Contractors – only the best are invited to join our team. Maintaining strict control over the installation process means that Sarnafil® quality is carried through from start to finish.

Sarnafil® EXTENSIVE GREEN ROOF



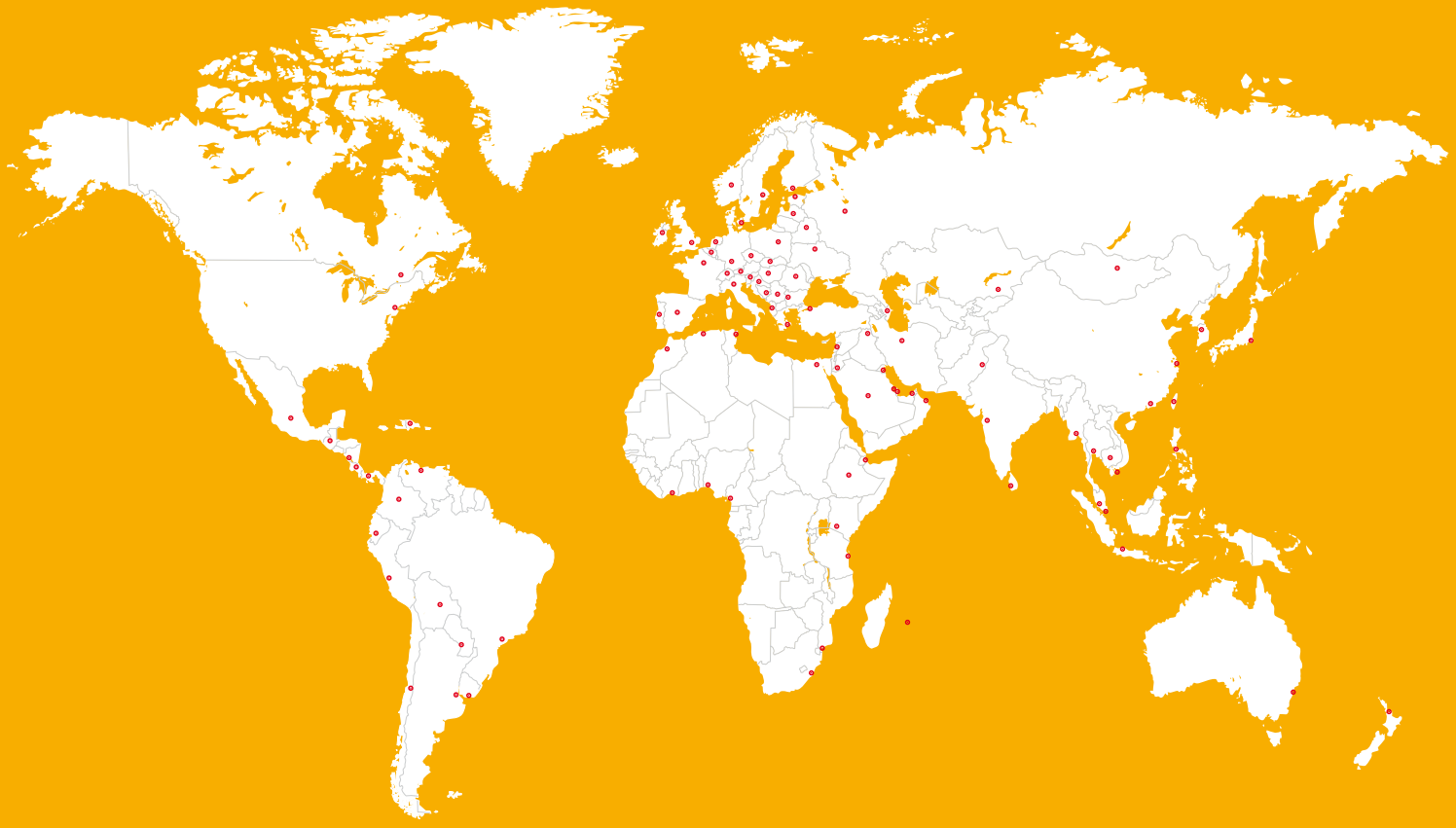
1. Plant (moss, herbs, grasses, and succulents all hearty plants)
2. Growing Medium
3. Filter Sheet
4. Drainage Board
5. Moisture Retention Material
6. Sarnafil® Membrane
7. Separation Layer
8. Thermal Insulation (If necessary)
9. Vapour Control Layer
10. Concrete Deck

Sarnafil® INTENSIVE GREEN ROOF



1. Plant (Perennials, bushes, grasses, and trees)
2. Growing Medium
3. Filter Sheet
4. Drainage Board
5. Concrete
6. Protection Layer
7. Sarnafil® Membrane
8. Separation Layer
9. Thermal Insulation (If necessary)
10. Vapour Control Layer
11. Concrete Deck

GLOBAL BUT LOCAL PARTNERSHIP



FOR MORE SIKA ROOFING INFORMATION:

WE ARE SIKA
Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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