

# SIKA SOLUTIONS DATA CENTRES



## RESILIENT SOLUTIONS FOR DATA CENTRES

A Single Source for all of Your Construction Needs



## **ROOFING SOLUTIONS**



#### SINGLE-PLY ROOFING MEMBRANES

The roofing system plays an essential role in the protection of a building. Ultraviolet rays, ponding water and high winds all conspire to compromise the roof prematurely, leading to leaking, damage to the building, costly repairs and possibly an early tear-off and re-roof. Sarnafil® roofing and waterproofing systems respond to these challenges with a variety of system configurations designed to meet the specific needs of almost any application, regardless of slope.

**Technology:** Sarnafil® – Single-ply, thermoplastic roofing/waterproofing membrane reinforced with fabric

**Performance/Benefits:** Sarnafil® membranes have a proven long-term manufacturing experience of over 60 years. Sarnafil® membranes are UV and fire-resistant, provide excellent wind uplift resistance and are FM approved.

Sustainability: Sarnafil® membranes help keep buildings and even the surrounding environment "cooler", thereby lowering power consumption and helping to counter the "urban heat island effect" prevalent in cities across the globe. Longlasting roofs, also need to be replaced less frequently and thus conserve natural resources while reducing the pressure on landfills. Sarnafil® membranes are highly reflective (SRI) thereby reducing energy costs, provide a long lifecycle, low environmental impact; are recyclable. Sarnafil® membranes are NSF compliant and contribute towards satisfying several credits under LEED®v4/v4.1; Green Globes®: BBA. BREEAM®: DGNB®.



#### **LIQUID-APPLIED MEMBRANES (LAM)**

Waterproofing systems applied in liquid form have a clear advantage over conventional waterproofing sheeting, especially on roofs with complicated geometries. LAM enable easy detailing by applying the membrane around the details quickly without the need for seams or prefabricated mounded parts. Under normal conditions, the systems can be applied without disrupting business activities. LAM cure to form a rubber-like elastomeric waterproof membrane and may be applied over many substrates, including concrete, asphalt, bitumen, steel and much more.

**Technology:** Sikalastic® RoofPro — 1-component, PU-based technology using a unique chemistry that allows the material to use atmospheric moisture to trigger the curing process..

Performance/Benefits: 25 years of proven performance worldwide. Ideal for roofing and waterproofing applications in new construction and refurbishment. System becomes waterproof shortly after application, providing protection against sudden rainstorms and adverse weather conditions. Suitable for direct application to structural concrete decks, plywood decks, and many existing smooth and granule-surfaced roofing systems. Sikalastic® RoofPro systems are reflective, fire-rated, wind-rated and alkaline-resistant (FM Approval)

**Sustainability:** Sikalastic® RoofPro solutions contribute towards satisfying several credits under LEED®v4/v4.1



#### WATERPROOFING ROOF MEMBRANES

Thanks to its waterproofing qualities, asphalt is widely used in construction, either for new buildings or renovation projects. Once applied, asphalt-based membranes form a thin layer of watertight material fully-bonded to the surface. They form a flexible system, able to maintain its waterproof capacity without causing cracks.

**Technology:** Hydrotech® MM 6125® – Hot-applied rubberized asphaltbased membrane formulated with an homogeneous mix of refined asphalts, synthetic rubber and mineral inert filler

Performance/Benefits: Unbeatable track record of more than 60 years. Conforms to all surface irregularities and bonds tenaciously to substrate (concrete, steel, wood, etc.). Thick, tough, flexible and self-healing membrane. Completely monolithic; no seam. Simplified detailing with triple protection at all critical locations. Hydrotech® MM 6125® is successfully used worldwide by leading architects, engineers and owners on all types of horizontal and vertical structures.

Sustainability: Reduction of the building's carbon footprint through sustainable practices (encouraging circular economy with 40 % post-consumer recycled material) Reduction of the urban heat island effect. Diverts tons of residual material from landfills. Hydrotech® MM 6125® contributes towards satisfying several credits under LEED®v4/v4.1 and Living Building Challenge credits.

cutting costs.

## JOINT SEALANT SOLUTIONS

### WALL AND FLOORING SOLUTIONS



#### **JOINT SEALANTS**

Joints are omnipresent in construction. They are found between the different building elements and materials. They are designed to enable movement between the building blocks mainly originating from thermal expansion of the materials. Even though sealants represent a small part of a construction, they are of the uttermost importance for the function and durability of the building envelope.

**Technologies:** Sikasil® – Engineered silicone sealants & adhesives, Sikaflex® – Polyurethane & hybrid sealants and adhesives, Sika® Loadflex® – Polyurea technology for rigid joint sealing

Performance/Benefits: A full range of sealants designed for a wide range of applications: high traffic areas, curtain walls, precast elements, aluminum composite materials, brick work and architectural stone. Joint sealing prevents the passage of media like air, water, chemicals or smoke. It also provides thermal and sound insulation and helps enhance the visual appearance of the whole construction.

**Sustainability:** Low-VOC content and emissions materials. Solvent-free formulations. Sika sealants and adhesives contribute towards satisfying several credits under LEED®v4/v4.1



#### **EXPANSION IOINTS**

Expansion joints in concrete and other construction materials structure are a critical element in overall building enclosure performance. Emseal® is the leading innovator and manufacturer of premium sealants and expansion joint systems for the commercial construction industry as well as for numerous gasketing applications in specialty market applications

**Technology:** Emseal® – Pre-compressed, impregnated foam sealant technologies

**Performance/Benefits:** Waterproof, firerated (incl. UL 2079), trafficable, sound attenuating, insulating, air, wind, seismic, and watertight, building expansion joints

**Sustainability:** Sika® Emseal® expansion joint solutions contribute towards satisfying several credits under LEED®v4/v4.1 (including acoustic performance and building lifecycle impact reduction).





#### WALL COATINGS

The use of a correctly specified protective coating system on a building façade will protect against reinforcing steel corrosion (due to carbonation and/or chlorides) while still allowing the building to breathe, with transmission of water vapour through the protective coating. Sikagard® coatings provide long-term protection of reinforced and precast concrete building facades from the ingress of carbon dioxide and water while enhancing the visual appearance of concrete.

**Technology:** Sikagard® – Water-based/ acrylic technology

Performance/Benefits: Designed to prevent the ingress of moisture, chlorides, carbon dioxide, and the gasses and pollution which compromise the pH level of the concrete surrounding the steel rebar. They are water vapour permeable (allow the structure to breathe) and resistant to the UV light. Excellent weather and freeze/thaw damage resistance. Resistance to dirt pick-up and mildew. Long-lasting UV resistance and colour stability. Highly aesthetic, smooth or textured finishes

**Sustainability:** Long-lasting solutions that increase the service life and reduce maintenance of structures. Sikagard® solutions contribute towards satisfying several credits under LEED®v4/v4.1



#### **ELECTROSTATIC CONTROL FLOORING**

Electrostatic discharge (ESD) floors are floors installed with ESD flooring systems to protect electronics from damage caused by static electricity which accumulates from traffic. As a result, in industries where electronic components or volatile chemicals are involved, the static electricity can result in significant damage, injury and financial loss

**Technology:** Sikafloor® – ESD Technology

Performance/Benefits: Sikafloor® electrostatic control flooring systems provide effective personnel grounding and meets or exceeds the requirements of ANSI S20.20 for electronics applications, DOD facilities and NFPA requirements for flammable liquids, powders and gasses. Seamless resinous system. Excellent resistance to impact, abrasion and chemical exposure. Non-porous, easy to clean and maintain system. Maintains ESD throughout the entire thickness of the system

**Sustainability:** Sikafloor® solutions contribute towards satisfying several credits under LEED®v4/v4.1



#### **EPOXY FLOOR SYSTEMS**

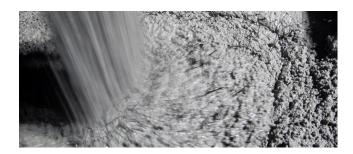
From general service to specialty flooring, Sikafloor® epoxy systems provide excellent abrasion, chemical and impact resistance and are suited for heavy traffic and highly demanding conditions. Sikafloor® provides slip resistant, seamless coverage and customizable for a wide range of applications such as server halls, mechanical rooms, logistics/ storage areas and corridors.

**Technology:** Sikafloor® – 2-component epoxy resin-based systems

**Performance/Benefits:** Seamless resinous system. Excellent impact resistance. Excellent resistance to impact, abrasion and chemical exposure. Non-porous, easy to clean and maintain system.

**Sustainability:** Long-lasting solutions that increase the service life and reduce maintenance of structures Sikafloor® solutions contribute towards satisfying several credits under LEED®y4/v4.1

## CONCRETE SOLUTIONS AND SUSTAINABILITY



#### **CONCRETE ADMIXTURES AND FIBRES**

Concrete admixtures are natural or manufactured chemicals or additives added during concrete mixing to enhance specific properties of the fresh or hardened concrete, such as workability, durability, or early and final strength. With a full line of concrete admixtures and complementary products for ready-mix, precast/prestress, paving, manufactured concrete products, tunneling and mining and dry mortar production, Sika has unique and innovative solutions to meet the needs of the concrete industry.

**Key Technologies:** Sika® ViscoCrete®, SikaRapid®, Sika® Control, SikaFiber®

**Performance/Benefits:** Increased overall concrete strength. Lower permeability (watertightness). Ease of placement. Extended working time. Improved surface quality. Reduced shrinkage cracking. Reinforcement replacement. Accelerated construction. Increased tensile capacity. Increased durability and impact resistance.

**Sustainability:** Sika's water reducers allow for cement reduction and optimization (allowing the of supplementary cementitious materials at a higher rate in concrete mixes). Sika accelerators can also reduce the energy necessary for curing concrete. Concrete consistency, long slump life, and stable air can be controlled through the use of Sika admixtures, enabling a drastic reduction in rejected concrete loads (hence reducing concrete waste at the jobsite). Sika concrete admixtures and fibres contribute towards satisfying several credits under LEED®v4/v4.1





#### SUSTAINABILITY

Data centre design and construction face significant sustainability challenges, requiring innovative approaches related to energy, durability,  $\mathrm{CO_2}$  emissions and resource consumption. In the context of projects aiming for LEED®v4/v4.1 certification, many of Sika's building products can contribute directly to the achievement of points in specific credits. Below is an overview of the main credits identified by Sika are the following:

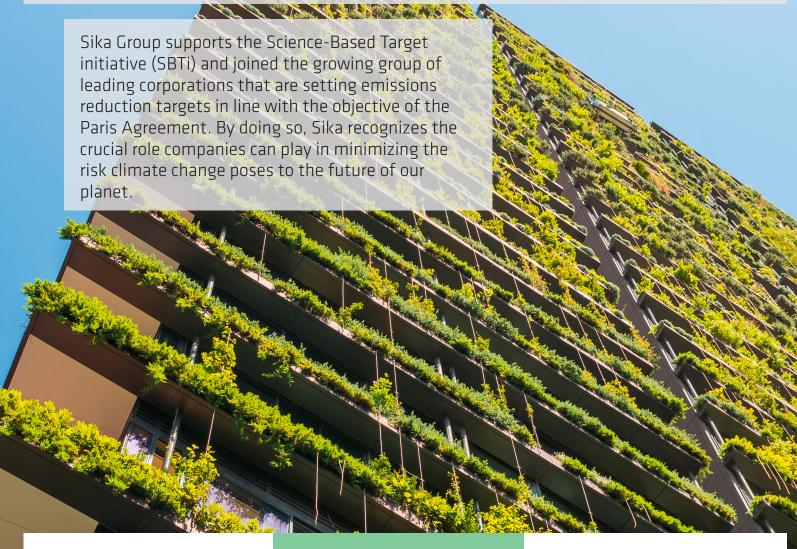
- MR Credit BPD&O: Environmental Product Declaration (EPD)
- MR Credit BPD&O: Materials Ingredients (Option 1 Manufacturer Inventory)
- MR Credit BPD&O: Raw Material Sourcing (Option 1 - Raw Material Source and Extraction Disclosure)
- IEQ Credit: Low-Emitting Materials
- IEQ Credit: Acoustic Performance
- SS Credit Site Development: Protect or Restore Habitat / Stormwater Management / Heat Island Effect Reduction

Don't hesitate to reach to us to learn more about Sika Sustainable solutions for your next project.

LEED Zone | Sika Canada



## TRANSFORMING INNOVATION AND EFFECTIVE SUSTAINABILITY



#### PRESERVE NATURAL RESOURCES

- Increase water and waste efficiency
- Reduce usage of hazardous materials

## CLIMATE CHANGE MITIGATION

- Reduction direct and indirect emissions
- Building on circular economy

#### INNOVATION

- All new product developments to be SPM validated
- Digitalization to accelerate transformation

### YOUR SINGLE SOURCE SUPPLIER



ROOFING



CONCRETE



**JOINT SEALING** 



SHOTCRETE



**GROUTING & ANCHORING** 



**CONCRETE REPAIR & PROTECTION** 



STRUCTURAL STRENGTHENING



**TUNNELING** 



FLOOR & WALL SYSTEMS



WATERPROOFING SYSTEMS



**MASONRY** 



MINING

## CONTACT US FOR MORE INFORMATION



Sika Canada Inc., a member of the Sika Group, is a leader in the field of speciality chemicals for construction and manufacturing industries. Our product lines feature high quality roofing systems, concrete admixtures, mortars and resins, sealants and adhesives, structural strengthening components, industrial and decorative flooring, as well as protective coatings and waterproofing systems. Our expertise is borne out of a global presence and served by strong, local support. Sika has earned the trust of our customers for over 100 years, by delivering the highest standards of commitment and partnership.

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.

