SIKA® BUILDING CAPABILITIES
SYSTEMS AND SOLUTIONS
Global Commitment: More Value Less Impact

6 Targets with largest effect

<table>
<thead>
<tr>
<th>Economic Performance</th>
<th>Sustainable Solutions</th>
<th>Local Communities/Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>TARGET</td>
<td>Operating profit (EBIT) above 10% of net sales.</td>
<td>TARGET</td>
</tr>
</tbody>
</table>

**More Value**

**Less Impact**

<table>
<thead>
<tr>
<th>Energy</th>
<th>Water/Waste</th>
<th>Occupational Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>TARGET</td>
<td>3% less energy consumption per ton and year.</td>
<td>TARGET</td>
</tr>
</tbody>
</table>

US Commitment: Solutions Built for Sustainability

Similar to our parent company Sika in the US has a strong commitment to sustainability. Our commitment is built on 4 pillars which our business partners have confirmed are critical areas of concern:

- Energy Efficiency
- Environmentally Preferable Products
- Greenhouse Gas Reduction
- Waste Reduction

The products we supply have a positive impact on these 4 pillars. Concrete repair is sustainability. The greenest structures are the ones already built. Extending the life of a building is far more sustainable than building new.

Repairs That Stand The Test of Time

Award winning Sika projects in the International Concrete Repair Institute (ICRI) Awards “Longevity” category

- **2013 Award**
  - JTA Skyway Restoration
- **2012 Award**
  - Evans Hall at University of CA
- **2009 Award**
  - Cassell Coliseum at VA Tech Univ.
- **2008 Award**
  - Rose Bowl Stadium Restoration
- **2006 Award**
  - Hallmark Condo Balcony Repair
- **2005 Award**
  - Rehabilitation of Two Hyperbolic Cooling Towers
Problems in buildings are usually caused by a combination of factors. It is critical to understand what some of the possible factors are in order to design a proper repair and protection solution. The first and most important step is to diagnose the root cause of the deterioration.

Common Problems: Building Facades & Balconies

Requirements before the Repair

Start with the condition Survey
A thorough condition survey is critical to ensure a successful project. This testing should always be conducted by a qualified professional.

Surveys often consist of performing one or more of the following:
- Visual inspection for condition of the concrete, sealants and coatings
- Spall and delamination survey
- Chloride and carbonation testing
- Reinforcement mapping and cover measurements
- Half-cell corrosion potential mapping
- Corrosion rate assessment
- Petrographic analysis

The results of these tests should serve as the basis for selecting a strategy that will meet the project requirements. Sika can help develop a repair and protection strategy and be your single source for a comprehensive solution.

Testing to identify carbonated concrete. Purple indicates a high pH while no color change signifies carbonated concrete.
Sika offers a complete range of high performance repair mortars and prebagged concrete for applications ranging from cosmetic to structural repairs.

Sika’s repair mortars are compatible with a full range of restoration systems so that not only the visible signs of damage are repaired, but deterioration is addressed, extending the service life and sustainability of the structure.

**SikaTop®, SikaQuick®, SikaGrout®, SikaRepair®, SikaLevel®, Sikacrete® AND Sikacem®**

- A repair mortar for any concrete repair
- Proven excellence over 30 years of on-site performance
- Polymer modified cementitious mortars
- Repair mortar formulated for overhead, vertical or horizontal use
- Repair materials for wet or dry machine application (shotcrete)
- Unique epoxy/cement reinforcement primer and bonding agent
- Mortars available with integral corrosion inhibitor
- Fast-setting line of mortar and concrete for time sensitive applications
- Pre-packaged concrete mixes, including the revolutionary self-consolidating concrete in a bag.
- Complete line of self leveling underlayments and primers

**Sikadur® STRUCTURAL REPAIR EPOXY RESINS**

- Five decades of proven performance
- A wide selection of high-modulus and low-modulus resin products
- Epoxy products used for structural bonding and crack injection
- Super low viscosity, resins for topical slab treatment against chlorides and water penetration
- Epoxy mortar systems for critical applications in building structures

SikaTop® 123 Plus used for vertical repairs.

Sikacrete® 211 SCC Plus for form and pour on a balcony.

Sikadur® 21 Lo-Mod with oven dried aggregate for rail post grout.
Sika is able to offer a comprehensive package of corrosion management solutions that range from assistance with root cause analysis and monitoring to supply of corrosion inhibitors and cathodic protection.

**Sika® FerroGard®-903**

Sika FerroGard-903 is a unique surface applied corrosion inhibitor that penetrates the concrete cover to the reinforcing steel, reducing the corrosion rate and extending the service life of a structure.

- Reduces active corrosion
- Delays the onset of corrosion and reduces corrosion rate
- Proven penetration up to 3 inches (75 mm) in 28 days

**Sika® FerroGard®-908**

Sika FerroGard-908 is a dual-functional corrosion inhibitor and penetrating sealer.

- Reduces active corrosion
- Increases resistivity of concrete
- Repels water and chloride ions
- Contains silane sealer and amino alcohol corrosion inhibitor

**Sika® FerroGard® 650, 670 AND 675**

Sika FerroGard embedded galvanic anodes consist of a zinc core surrounded by a specially formulated cementitious mortar. The zinc core corrodes preferentially to the surrounding rebar it is attached to, providing galvanic protection to the reinforcing steel.

**Sika® FerroGard® Anodes**
- Corrosion prevention for “ring anodes” adjacent to spall repairs
- Placed at the perimeter of the repair
- Use at the interface of new full-depth slab replacement or partial depth areas
- Highly chloride contaminated concrete
Protective Coatings for Balconies and Terraces
Sika Systems Selection Guide

Besides roofs, balconies and terraces are the most vulnerable areas of a building because they are permanently exposed to the weather. Effects from heat, frost and rain can cause cracks and leaks in the concrete.

Sika provides comprehensive solutions to waterproofing problems with maximum protection. Sika’s wide range of products, including polyurethanes, epoxies and cement based coatings are designed to make concrete and masonry impermeable to water, while offering flexibility to handle all your balcony waterproofing needs.

System | Technology | Coats (excluding primer) | Application Days | VOCs | Crack Bridging/Modulus | Features
--- | --- | --- | --- | --- | --- | ---
Sikalastic® 720/745 Traffic | 2-component polyurethane | 2-3 | 1-2 | below 10 | 1/16” dynamic | fast cure, low odor
Sikalastic® 390/391/395 | 2-component polyurethane | 2-3 | 2-3 | below 10 | 1/16” dynamic | low odor
Sikalastic® 710/715/735 AL | 1-component polyurethane | 3-4 | 3-4 | below 250 | 1/16” dynamic | no pot life restrictions, enhanced UV stability with aliphatic top coat
Sikalastic® 710 Lo-VOC /715 Lo-VOC/735 AL Lo-VOC | 1-component polyurethane | 3-4 | 3-4 | below 100 | 1/16” dynamic | no pot life restrictions, enhanced UV stability with aliphatic top coat
Sikadur® 22 Lo-Mod Hybrid | polyurethane waterproofing with epoxy wear coat | 2-3 | 2-3 | below 100 | 1/16” dynamic | flexible waterproofing, high abrasion resistance, optional top coat
Sikadur® Epoxy Broadcast Overlay | epoxy and polyurethane | 2 | 2 | below 100 | low modulus | high abrasion resistance
Sikagard® Flexcoat System | cementitious waterproofing with acrylic top coat | 3-4 | 2 | below 100 | static | cementitious decorative waterproofing
FlexCoat ATC | cementitious and acrylic | 2-4 | 1-2 | below 100 | flexible | range of textures, On grade application

Sikalastic® COLORS
3 Standard Colors/ Custom Colors Available

Sikadur® EPOXY BALCONY SYSTEM
4 Color Quartz Aggregate Finishes Available

Sikadur® FLEXCOAT COLORS
12 Standard Colors Available

Sikadur® FLEXCOAT finishes
4 Standard Finishes Available

Sikagard® FLEXCOAT COLORS
12 Standard Colors Available

Sikagard® FLEXCOAT FINISHES
4 Standard Finishes Available

Disclaimer: The various types of computer monitors and graphics cards on the market all have their own particular characteristics and will all show slight variations in color from one model to another. Therefore Sika cannot guarantee that the colors you see on your monitor correspond exactly to the Sika color range. Actual Sika colors will also show variations from the exact Sika color range when printed on any color printer. Use actual cured product for color matching.
Sikalastic® TRAFFIC SYSTEMS
- Single and two component elastomeric waterproofing traffic systems
- Excellent crack-bridging properties, even at low temperatures
- Excellent resistance to abrasion and wear
- Impervious to water and deicing salts
- Range of standard colors as well as custom and decorative options (see examples on left)

Sikagard® FLEXCOAT
- Flexible, cement-based waterproofing system
- Base Coat: Cement-based, polymer-modified material
- Water Vapor Permeable System
- Silica-free. No broadcast required for skid resistance
- Acrylic Top Coat: Adds aesthetic value and enhances protection
- Embedding Mesh: can be utilized for crack and joint details

Sikadur® EPOXY BALCONY SYSTEM
- Epoxy-based, durable protection system
- Superior resistance to abrasion and wear
- Low modulus resin
- Fast turnaround time
- Impervious to water
- Prevents moisture and chloride intrusion to the concrete, adding years of service life
- Clear resin allows you to pick the aggregate color of your choice
STRUCTURAL STRENGTHENING

FIBER REINFORCED POLYMERS
Fiber reinforced polymers (FRP) are a proven technology for upgrading and strengthening concrete, masonry, and steel structures. These advanced composite materials have exceptionally high strengths, yet are very lightweight and easy to work with. They are used for increasing the capacity of existing buildings, seismically upgrading structures, correcting design or construction errors, and allowing modifications or changes in use.

- Economical and durable
- Easy application
- Extremely high tensile strength
- Outstanding fatigue behavior
- Absolute corrosion resistance
- Ability to upgrade structure while in use
- Upgrades possible even with limited access

Examples of blast strengthening using Sika® CarboDur® plates and SikaWrap® fabrics

Sika CarboDur® and SikaWrap® SYSTEMS
Sika CarboDur plates and SikaWrap fabrics have been used successfully on thousands of projects worldwide. The most common uses have been for flexural strengthening, shear upgrades and column confinement. However, they have many other uses, including strengthening for cut-outs, blast hardening, fire and structural damage, and upgrading structures damaged by corrosion.

SikaWrap® System used to reinforce a concrete beam.
Glass fiber fabric being applied to strengthen unreinforced masonry wall.
Seismic strengthening of columns with carbon fiber fabrics.
JOINT SEALING

Tight joints are the key to durable and energy-saving building façades. Elastic joint sealants must be able to withstand the thermal movement from various materials and are primarily responsible for air and water tightness of the façade. This is important because water and air tightness are necessary for the thermal insulation of a building and therefore result in a lower energy consumption of the building.

Sika offers Sikaflex polyurethane sealants, Sikasil silicone sealants and SikaHyflex hybrid sealants as a complete range of one-component and two-component sealants for overhead, vertical and horizontal joint applications, such as expansion joints, window and door perimeters, penetrations and roofing.

**Sikaflex®**
- Excellent adhesion to most building surfaces without a primer, especially concrete and masonry
- Paintable with most coatings and paints with out risk of delamination
- Non staining, will not discolor common substrates

**Sikasil®**
- Excellent adhesion to both porous and non-porous substrates
- Non-staining
- SWRI validated
- Superior durability and weathering resistance

**SikaHyflex®**
- Perfect for connecting dissimilar substrates
- Fast overpaintability
- Superior UV resistance

### Movement Capability

<table>
<thead>
<tr>
<th>Material Type</th>
<th>Sikaflex 1a</th>
<th>Sikaflex 15LM</th>
<th>Sikaflex 2c NS EZ Mix</th>
<th>Sikaflex® 11FC</th>
<th>Sikasil WS-290</th>
<th>Sikasil WS-295</th>
<th>Sika Silbridge-300</th>
<th>Sika* N-Plus</th>
<th>SikaHyflex® 150 LM</th>
</tr>
</thead>
</table>

*Product adheres to concrete and masonry surfaces but is not recommended for expansion joints*
Long term protection of a reinforced concrete building façade cannot be achieved by repairing concrete deterioration alone. The use of a Sikagard protective coating system on a building façade will protect against reinforcing steel corrosion while still allowing the building to breathe with the transmission of water vapor through the protective coating.

**SEALERS**
- High reduction of aggressive element ingress
- High penetration for long term durability
- Non staining
- Increased resistance to freeze/thaw cycles and de-icing salts

**SIKAGARD FACADE COATINGS PROVIDE:**
- Water based, acrylic, VOC compliant coatings
- Dynamic and thermal crack bridging capabilities
- Excellent resistance to dirt pick-up and mildew
- Proven durability results over 15 years in service

### Sikagard Protective Treatments

<table>
<thead>
<tr>
<th>Property</th>
<th>Protective Coatings</th>
<th>Protective Sealers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Name</strong></td>
<td>Sikagard® 570</td>
<td>Sikagard® 550W</td>
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<tr>
<td></td>
<td>Sikagard® Elastocolor</td>
<td>Sikagard® 670W</td>
</tr>
<tr>
<td></td>
<td>Sikagard® 706 Thixo</td>
<td>Sikagard® 705L</td>
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<td></td>
<td>Sikagard® 740W</td>
<td>Sikagard® 701W</td>
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<td><strong>Base</strong></td>
<td>Water</td>
<td>Water</td>
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<tr>
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<td>Silane/Water</td>
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<td>Excellent</td>
</tr>
<tr>
<td><strong>Carbonation Resistance</strong></td>
<td>Superior</td>
<td>Excellent (tested after 10 years exposure)</td>
</tr>
<tr>
<td><strong>Crack-Bridging Capacity</strong></td>
<td>Superior (tested down to 0°C)</td>
<td>Excellent (tested down to 0°C)</td>
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<tr>
<td><strong>Long-Term Weathering</strong></td>
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<td>Excellent</td>
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<td><strong>Resistance to Wind-Driven Rain</strong></td>
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<td><strong>Breathability</strong></td>
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</tr>
</tbody>
</table>
| **Color**                 | 463 Standard colors, color matching available | 463 Standard colors, color matching available | 463 standard colors, color matching available | None | None | None | None
ROOF WATERPROOFING

Sikalastic RoofPro cold, liquid-applied membranes combine a moisture-triggered saturating resin with either fiberglass strand Reemat or non-woven polyester fleece reinforcement, resulting in a highly durable, seamless, fully reinforced, fully bonded, waterproof elastomeric membrane. The superior reliability of Sikalastic RoofPro membranes has been proven over 25 years of successful applications worldwide.

Sikalastic RoofPro membranes bond directly to most common building substrates, are resistant to typical rooftop contaminants, and are rainproof minutes after application. The liquid-applied nature of the membrane means that even the most complex penetrations and decorative elements can be waterproofed without the use of metal flashings, sealants, pitch pans or mastics.

Sikalastic RoofPro systems are excellent solutions for a wide range of roofing, waterproofing, restoration and repair applications, from problem-solving repairs to aesthetic applications using colors, aggregate or flake surfacing to complement or accent the structures to which it is applied.

<table>
<thead>
<tr>
<th>System</th>
<th>Roofing</th>
<th>Waterproofing</th>
<th>Restoration</th>
<th>Repair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sikalastic®</td>
<td>Built-Up Insulated Roofing</td>
<td>Also Acceptable if Alkalinity Resistance is Not Required</td>
<td>Decorative Elements</td>
<td>Existing Flashing</td>
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<tr>
<td>601/621</td>
<td>Direct- to- Substrate Roofing</td>
<td></td>
<td>Metal Recover Roofing</td>
<td>Unique Conditions</td>
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<tr>
<td></td>
<td>Protected Membrane Roofing</td>
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<tr>
<td></td>
<td>Recover Roofing</td>
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</tr>
<tr>
<td>Sikalastic®</td>
<td>Built-Up Insulated Roofing</td>
<td>Also Acceptable if Alkalinity Resistance is Not Required</td>
<td>Decorative Elements</td>
<td>Existing Flashing</td>
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<tr>
<td>641 Low-Odor</td>
<td>Direct- to- Substrate Roofing</td>
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<td>Metal Recover Roofing</td>
<td>Unique Conditions</td>
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<td>Protected Membrane Roofing</td>
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<tr>
<td></td>
<td>Recover Roofing</td>
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<tr>
<td>Sikalastic®</td>
<td>Also Acceptable</td>
<td>Plaza Deck Waterproofing</td>
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<tr>
<td>624 WP</td>
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<td>- Balcony/Terrace Waterproofing</td>
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<td></td>
<td></td>
<td>- Vegetated Roofing</td>
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<tr>
<td></td>
<td></td>
<td>- Alkali Resistant</td>
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<tr>
<td>Sikalastic®</td>
<td>Also Acceptable</td>
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<td>644 Low-Odor</td>
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<td>- Balcony/Terrace Waterproofing</td>
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<tr>
<td></td>
<td></td>
<td>- Vegetated Roofing</td>
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</tbody>
</table>

Sikalastic® RoofPro® BUILT-UP INSULATED

Sikalastic RoofPro liquid resin w/aggregate for pedestrian traffic (optional)
Sikalastic RoofPro liquid resin
Sikalastic Reemat or Sika Fleece
Rigid cover board (with optional base sheet)
Adhesive / Mechanical Fasteners
Polyisocyanurate Insulation
Adhesive / Mechanical Fasteners
Vapor control layer (if required)
Prepared deck primed as required

Sikalastic® RoofPro easily installs over insulation and cover board in a full system application, providing fire, hail and wind uplift resistance typically required by codes and specifications.
All sales of Sika products are subject to Sika’s current Terms and Conditions of Sale available at www.usa.sika.com or by calling 201-933-8800. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product’s most current Product Data Sheet, product label and Safety Data Sheet, which are available at www.usa.sika.com or by calling Technical Services at 1-800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

The sale of all Sika products are subject to the following Limited Warranty:

**LIMITED MATERIAL WARRANTY**

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer’s sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

**NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Our most current General Sales Conditions shall apply. Please consult the Product Data Sheets prior to any use and processing.

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Fax: 52 442 2250537