

CONCRETE SIKA SLAB SOLUTIONS

A COMPREHENSIVE APPROACH TO SLABS ON GROUND

BUILDING TRUST
CONSTRUIRE LA CONFIANCE



SIKA SLAB SOLUTIONS

THE KEY TO A LONG LASTING CONCRETE SLAB is proper slab design and material selection. Through the best practice guidelines of ACI combined with Sika's more than 100 years of global expertise in concrete solutions, Sika is able to provide the most comprehensive suite of products in the market to create a more durable, crack resistant and cost effective slab for your next construction project.

Value for owners, contractors and producers alike, Sika Slab Solutions addresses all phases of construction, from production to placement. Key features and benefits of Sika Slab Solutions include:

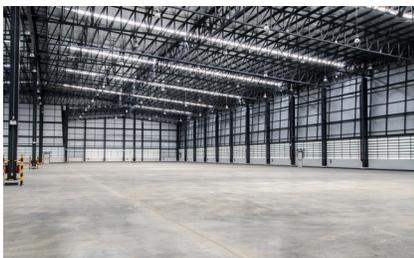
- Extended joint spacing
- Partial or full replacement of reinforcing
- Remend section thickness
- Building code compliant

Until this point, the design community has been left to handle concrete slab designs on their own. Provided with all necessary information, Sika is able to assist your design team in creating concrete with increased joint spacing, reduced section thickness, and conventional reinforcements, as well as optimized placement characteristics, low shrinkage, increased structural

loading capacity, and reduced curling. The result is a building code accepted approach with notes and recommended details tailored and optimized to each project.

On-site support continues with Sika's experienced field representatives assisting local producers with mix design suggestions to ensure the highest possible level of performance. With experts in the fields of waterproofing, sealants, repair, flooring and roofing, Sika is your single-source provider for all of your project needs.

From pre-pour preparation to final finished flooring, your next large slab is in the best hands you can expect, those of the market leader for innovation, service, and value in the field of concrete construction.



TYPICAL APPLICATIONS:

- Warehousing
- Distribution Centers
- Manufacturing Facilities
- Commercial and Retail Space
- Food & Beverage Facilities
- Educational Facilities
- Hospitals
- Data Centers



FEATURES AND BENEFITS:

- Extended Joint Spacing
- Partial or Full Replacement of Reinforcing
- Reduced Construction Costs and Schedule
- Reduced Maintenance Costs
- Increased Service Life
- Enhanced Surface Quality and Durability
- Project Assistance and Support
- Single-Source Supplier
- Building code compliant

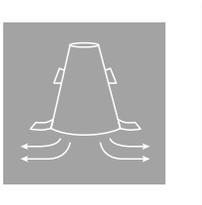
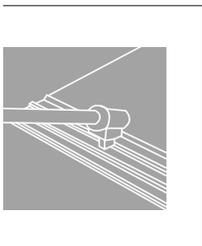
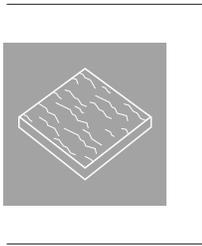
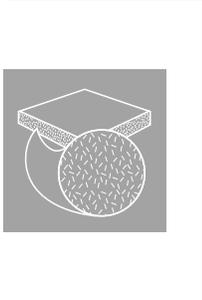
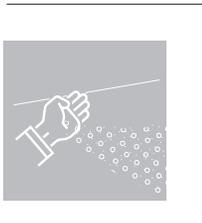


PRODUCT FAMILIES:

- Sika ViscoCrete® Series of Water Reducing Admixtures
- Sika® Control Series - Shrinkage Reducing/Compensating Admixtures
- Sika® Fibermesh® Concrete Fibres
- Sika Dry Shake Hardeners
- Sika Solutions for Concrete Curing
- Sika Solutions for Concrete Joints
- Sika Flooring Systems
- Sika Roofing Systems
- Sika Decorative Concrete

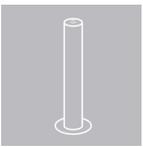
CONCRETE ADMIXTURES

Concrete design begins with the proper proportioning of cement, water and aggregate. Design of concrete, however, is optimized for value, workability and performance with the addition of chemical and mineral admixtures. Below are a selection of products that, when combined accordingly, will produce a high performance slab on ground - Sika Slab Solutions.

	<p>SIKA VISCOCRETE® SERIES - WATER REDUCERS</p> <p>The use of a water reducing admixture provides a way to increase overall strength, lower permeability, allow for easier placement and to control slump life for optimal surface finishing.</p>	<ul style="list-style-type: none"> ■ Increased overall strength ■ Lower permeability ■ Ease of placement
	<p>SIKA VISCOFLOW® SERIES - WORKABILITY ENHANCERS</p> <p>Sika provides the newest admixture technologies to extend slump life and enable optimized pumping. Sika ViscoFlow® technology extends slump life without retardation. For concrete pumping, the use of a viscosity modifier increases mix stability and segregation resistance resulting in better flow and improved surface quality/aesthetics.</p>	<ul style="list-style-type: none"> ■ Increased slump life ■ Extended working time ■ Improved surface quality ■ Decreased segregation ■ Improved pumping
	<p>SIKA® CONTROL SERIES - SHRINKAGE REDUCERS</p> <p>The use of a shrinkage reducing admixture (SRA) or shrinkage reducing and compensating admixture (SRCA) helps to control early and late age shrinkage cracking in concrete. A SRA/SRCA therefore increases durability, can extend joint spacing, and lower short and long term costs of ownership.</p>	<ul style="list-style-type: none"> ■ Reduced shrinkage cracking ■ Increased life span ■ Lower repair costs ■ Extended joint spacing
	<p>SIKA® FIBERMESH® - CONCRETE FIBRES</p> <p>Macro Synthetic Concrete Fibres can replace some or all temperature & shrinkage reinforcing steel. ACI design standards allows for the use of microfibre and macrofibre reinforcement to partially/fully replace conventional slab reinforcement such as welded wire fabric or rebar. If cracking occurs, the structural fibres create a 3D matrix of protection within the entire cross section of the concrete to provides crack containment.</p>	<ul style="list-style-type: none"> ■ Same cost ■ Extended joint spacing ■ Reinforcement replacement ■ Accelerated construction ■ Increased tensile capacity ■ Increased durability & impact resistance
	<p>SIKA DRY SHAKE HARDENERS SERIES</p> <p>Sika broadcast-applied, ready-to-use, premixed, mineral surface hardeners are used during concrete finishing phase to increase surface density and in order to create a hard, long-wearing, abrasion-resistant surface.</p>	<ul style="list-style-type: none"> ■ Densified surfaces ■ Increased abrasion resistance ■ Extended slab's life expectancy

LOAD TRANSFER SYSTEMS FOR CONCRETE JOINTING

The movement of material handling equipment, such as forklifts, automated equipment, and other vehicular traffic, over the top of concrete slab joints requires precautions to avoid slab deflection and subsequent cracking. Without a mechanism to transfer loads between the two or more slab sections, they will move independently of one another, causing joint fatigue and deterioration. This deterioration will lead to the need for nosing repair and joint material replacement; increasing joint maintenance cost over time. Traditional doweling practices are time and labor intensive to use, so Sika has created a series of solutions to address this.

	<p>SIKA® SPEED DOWEL Speed Dowel provides a practical dowel alignment method for transferring loads across, and managing stresses within, concrete slab-on-ground joints.</p>	<ul style="list-style-type: none"> ■ Used for construction Joints ■ Ensures proper dowel alignment for positive load transfer ■ Reduces time and cost for conventional slip dowel installation ■ Eliminates need to grease dowels
	<p>SIKA® SPEED PLATES Speed Plate provides load transfer across construction joints and immediately accommodates lateral and axial movement produced by concrete shrinkage and differential slab movement.</p>	<ul style="list-style-type: none"> ■ Used for construction Joints ■ Ensures proper plate alignment for positive load transfer ■ Allows for axial and lateral slab movement ■ Eliminates need to grease dowel
	<p>SIKA® SPEED LOAD Speed Load is a single component dowel sleeve for use in expansion joints. Speed Load passes through pre-drilled expansion boards and has a self-locking design to securely position and align round dowels for positive load transfer.</p>	<ul style="list-style-type: none"> ■ Used for expansion Joints ■ Dowel sleeve passes through expansion board ■ Allows contractor to pour against and through expansion joints ■ Eliminates need to grease dowels
	<p>SIKA® EMSEAL® EXPANSION JOINTS & PRECOMPRESSED SEALANTS Sika® Emseal® products are designed and manufactured to meet the demands of both the remediation of existing buildings and the maintenance of new structures.</p>	<ul style="list-style-type: none"> ■ Used for expansion Joints ■ Solutions for horizontal and vertical joints ■ Watertight, fire rated, insulating and seismic options for all parts of your project

CONCRETE CURING

Regardless of your project application, all concrete must be cured for optimal surface durability and performance. ACI Chapter 318 Guidelines emphasizes the importance of wet curing over a 7 day period - illustrating that the compressive strength can be increased by more than 50% over curing in air alone.

Traditional methods such as misting, ponding, and using materials such as burlap or plastic can yield positive results, but are time and labor intensive to use and maintain. Burlap will maintain moisture in a slab only if it is continually moistened-requiring time and labor. Plastic will maintain most of the concrete moisture, but must be secured and can visibly mar the concrete surface.

Sika's finishing aid/curing film and curing blankets will lower your labor costs and increase your slabs durability and aesthetics.



SIKA® FILM

Sika® Film retards moisture evaporation from the concrete surface and acts as a finishing aid for concrete flatwork. Sika® Film is recommended for use in all applications where a superior finish is required on concrete flatwork. Sika® Film protects concrete from the effects of excessive moisture loss in rapid drying conditions.

- Reduces moisture loss and rapid drying from concrete surface
- Aids in finishing concrete that produces little or no bleed water, such as microsilica mixes or mixes with air entrainment
- Simple installation with spray on application



SIKA® ULTRACURE™

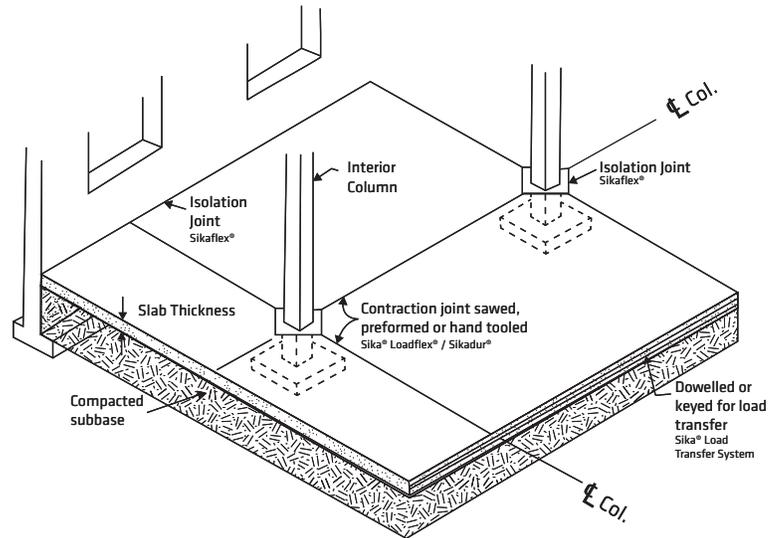
Sika® UltraCure™ are single-use wet curing blankets made of natural cellulose fabric and designed to provide constant and thorough hydration while maintaining a 100 % relative humidity condition on the slab for a curing period of 7 days resulting in less surface discoloration and a more evenly cured concrete slab.

- Retains 100 % relative humidity on the surface after a single wetting, for 7 days
- Absorbs and distributes water evenly over the entire slab surface
- Helps protect slabs and other flooring from wind, UV, and debris
- Simplified installation: rolls out where needed
- Helps prevent surface scratches, contamination, and potential impact hazards

SEALANTS FOR CONCRETE JOINT PROTECTION

Concrete expands and contracts with drying and temperature changes. To control this movement, joints are placed into the concrete slab at a predetermined spacing. These joints can be saw cut (control) or preformed (isolation/expansion), allowing for these natural changes in the concrete to occur at defined locations.

While concrete joints offer protection from uncontrolled cracking, they need protection themselves. Heavy forklift traffic can quickly damage joint edges causing them to widen and become unsafe. To prevent joint damage, joints are filled with either an epoxy or polyurea control joint filler and shaved smooth to create a flush profile for forklift traffic. Expansion joints in floors should still be able to withstand heavy traffic but have the flexibility for joint movement.

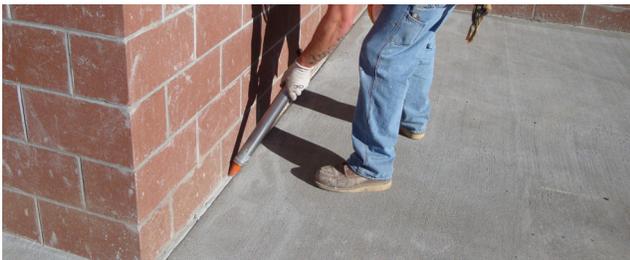


Source: ACI 360R-10 Guide to Design of Slabs-on-Ground



Sika® Loadflex®-524 EZ

- Used for control joints with vehicle traffic
- Shaves smooth in as little as 15 minutes allowing spaces to open to foot and forklift traffic sooner
- Extended shave time window affords contractors the ability to come back the next day and shave
- Better UV resistance compared to typical polyureas
- High moisture tolerance prevents bubbling and foaming at joint line



Sikaflex®-1c SL

- Used for isolated joints with no traffic
- 1- Component, no mixing required
- Self-leveling, pourable
- Can be applied to damp concrete 1 hour after getting wet
- Can be applied to green concrete 24 hours after pour
- Accelerated curing

FULL SERVICE SOLUTIONS

Additional Building Solutions Offered by Sika

For more than 100 years, architects, construction companies, and manufacturers have trusted Sika products to seal, bond, damp, reinforce and protect the things they design and build. Beyond simply providing specialty products, Sika is a true partner, bringing its deep application and technical expertise to projects while addressing customer needs for better, smarter, and more sustainable solutions.

The comprehensive products offered by Sika address the entire life cycle of a facility or a structure, from initial construction up to the point in time when repair, refurbishment or extension become necessary. For more information, contact Sika Canada.



PVC ROOFING

With more than 50 years of roofing and waterproofing experience, on buildings of all types and many diverse climates, Sika® Sarnafil® is a leader in PVC membrane technology.

AVAILABLE SOLUTIONS

- PVC roofing systems
- Liquid-applied roofing membranes
- Green roofs
- Primers & adhesives
- Roof insulation materials & accessories



FLOORING

Sika is a world renowned market leader in cement, epoxy and polyurethane flooring systems that have been proven in both new construction and refurbishment projects in commercial institutional and industrial construction sectors.

AVAILABLE SOLUTIONS

- Resinous flooring for general applications
- Special applications such as ESD, clean rooms, etc.
- Flexible/resilient high performance coatings
- Industrial floors/heavy duty applications



CONCRETE PROTECTION AND EMBELLISHMENT

Concrete, in all its forms, has been at the heart of Sika's business for over a century. Whether it's building with it, improving its performance, beautifying it, protecting it (and repairing it), Sika offers an unmatched range of products in the industry.

AVAILABLE SOLUTIONS

- Architectural & protective coatings
- Decorative concrete
- Masonry mortars & mixes
- Sealants & joints
- Waterproofing membranes
- Waterproofing systems
- Accessories for architectural concrete

ADDITIONAL RESOURCES AVAILABLE

- Contact Information for Sika Slab Experts
 - Lunch and Learn Requests
 - Project Review and Inquiries
 - Suggested Specifications
 - Additional Information on these products and more
- CONTACT AN EXPERT TODAY!



SIKA SOLUTIONS FROM ROOF TO FOUNDATION

Roofing Systems



Sarnafil®
Sikaplan®
Sikalastic®

Concrete Production



Sika® ViscoCrete®
Sika® Plastocrete®, SikaSet®
Sika® Air / AER^{CA}

Joint Sealing



Sikaflex®
Sikasil®
Sikadur® Combiflex

Grouting and Anchoring



SikaGrout®
Sikadur®
Sika AnchorFix®

Concrete Repair & Protection



Sika MonoTop®
SikaTop®, SikaRepair®
Sikagard®

Structural Strengthening



Sikadur®, Sika® CarboDur®
SikaWrap®
Sika® CarboShear

Floor & Wall Systems



Sikafloor®
Sikagard®
Sikagard® Duroplast

Waterproofing Systems



SikaProof®, SikaFuko®
Sika® Greenstreak®
SikaSwell®, SikaFix®

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.

The Information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions, within their shelflife. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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Certified ISO 14001 (CERT-0102791)

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