



Energy Efficiency

Resource Efficiency

Climate Protection

Air Quality

YOUR GUIDE TO SUSTAINABLE SEALING SOLUTIONS

BUILDING TRUST



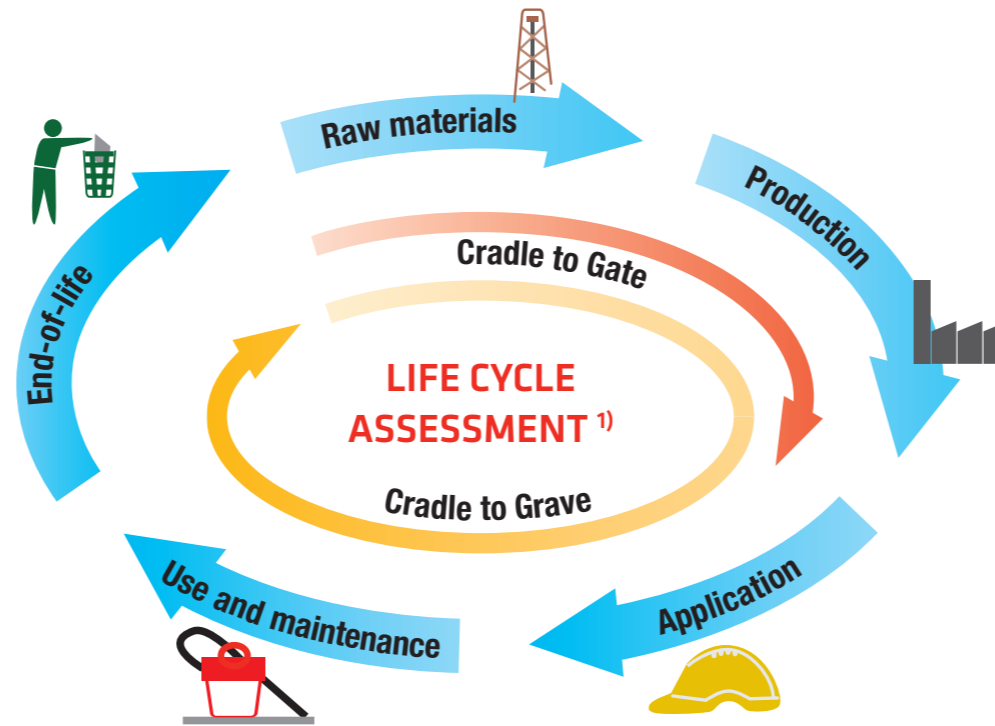
HOW CAN SIKA SEALING SOLUTIONS CONTRIBUTE TO SUSTAINABLE CONSTRUCTION?

SPECIFYING SIKA SEALING SYSTEMS CONTRIBUTES TO GREEN BUILDING CERTIFICATION

Sika sealing systems contribute to multiple points in Green Building Certification systems. This is because:



- Sika sealants and membranes ensure a tight building envelope and reduce air leakage significantly. Thus the energy demand for cooling a/o heating and the CO₂ emissions can be minimized.
- Sika sealants have very low VOC content, comply with South Coast Air Quality Management District (SCAQMD) Rule #1168 and meet the highest European standards such as EMICODE EC 1 PLUS and help therefore to achieve good indoor air quality.
- Sika bonding technologies stiffen window constructions and therefore enable to reduce the width of the frame. The glass area becomes larger and daylighting as well as solar gains are increased.



LIFE CYCLE ASSESSMENT OF YOUR SEALING SYSTEM

METHODOLOGY

¹⁾ Life Cycle Assessment (LCA) is a standardized method to assess and compare the inputs, outputs and potential environmental impact of products and services over their whole life cycle. It is also the basis on which Sika develops and evaluates the environmental performance of its sealing solutions:

The Sika LCA's are available for sealants in accordance with ISO 14040 and EN 15804 standards.

CONCLUSION

- The three main sealant technologies (Polyurethanes, Silicones and Silan Terminated Polymers), which are used for weather sealing, show – depending on the quality of the product – similar results.
- Hence no technology can be determined as most sustainable. Nevertheless the importance of sealants to tighten building envelopes and other constructions is proven and their impacts on sustainability are crucial.
- For further information, please contact your local Sika organisation



SELECT A SIKA SEALING SYSTEM TO REDUCE THE ENERGY DEMAND FOR COOLING A/O HEATING OF YOUR BUILDING

SikaHyflex[®], **Sikaflex**[®] and **SikaMembran**[®] sealing systems make building envelopes air tight:

- **SikaHyflex**[®] and **Sikaflex**[®] sealants have high movement capability, show best adhesion properties and are weathering and UV resistant. Therefore they ensure long lasting and tight joints.
- **SikaMembran**[®] systems seal even complicated transitions between different construction parts in facades and thus keep them air and water tight. Besides the minimized air leakage, the insulation is protected from driving rain and snow and keeps its insulation properties.



USE DURABLE SIKA SEALANTS WHICH HELP TO PROTECT WATER

Sikaflex[®] sealants have the ability to keep their tightness even under harsh conditions found in waste water treatment plants and biogas digesters:

- Sealants (**Sikaflex**[®] PRO-3, **Sikaflex**[®] Tank N) based on **i-Cure**[®] technology combining excellent mechanical properties with high movement capability and keeps its properties also under continuous and prolonged exposure and ensure durable and tight construction.
- **Sikaflex**[®] TS Plus is especially designed for connection joints between enamelled steel or stainless steel tank elements and enable to build long lasting and tight silos for biogas plants.



USE SIKA SEALANTS WHICH RESPECT YOUR INDOOR AIR QUALITY

Many people spend more than 80% of their time in indoor environments: home, office, factory, retail, leisure, education and transportation. There are various initiatives around the globe to reduce VOC emissions from building materials and improve the indoor air quality. These VOC's (Volatile Organic Compounds) have been identified as having potential long term health impact and an adverse effect on the environment.

SikaHyflex[®] and **Sikaflex**[®] sealants based on **i-Cure**[®] technology comply with the most stringent standards with regard to controlling the emission of VOC's including from:

- Germany: EMICODE EC 1 PLUS
- France: AFFSET A+
- Finland: M1
- USA: SCAQMD Rule #1168

A complete list of the tested **SikaHyflex**[®] and **Sikaflex**[®] sealants and their approvals are available from your Sika local organisation.



SELECT AN APPROVED SIKAFLEX[®] "CLEANROOM SUITABLE MATERIAL"

Manufacturing under cleanroom conditions is becoming more widespread and demanding. Sika provides a comprehensive range of systems which are specifically tested and approved as 'Cleanroom Suitable Materials'.

Coatings for floors (**Sikafloor**[®]), coatings for walls (**Sikagard**[®]) and compatible sealant (**Sikaflex**[®] PRO-3) comply with demanding requirements with regards to:

- VOC emissions
- Airborne Molecular Contaminants (AMC) emissions
- Particulate emissions



HOW CAN I CONTRIBUTE TO SUSTAINABLE CONSTRUCTION?

YOU CAN CONTRIBUTE TO SUSTAINABLE CONSTRUCTION BY:

- Choosing long lasting sealing solutions to keep the building envelope air and water tight to reduce the demand of energy for cooling a/o heating. The Carbon Footprint of the whole building can be reduced significantly.
- Selecting low emitting products for indoor applications to ensure good indoor air quality.
- Using long lasting solutions to seal containment bunds and silos to prevent pollution of adjacent soil or ground water.

Find the technical background:

- Introduction to Life Cycle Assessment (LCA) and environmental impact categories.
- LCA results of main sealant technologies
- Case studies which show the influence of tight joints in facades to save energy and prove the outstanding resistance of **Sikaflex**® sealants even under harsh conditions.
- VOC content and VOC emissions of sealing systems
- An overview of Green Building Certification programs and how Sika solutions can contribute to fulfill their requirements.



SELECT SUSTAINABLE SIKA FLOORING SOLUTIONS:



Energy efficiency solutions

SikaHyflex® sealants and **SikaMembran**® ensure tight building envelopes, therefore reduce the energy demand of buildings.



Resource efficiency solutions

Sika bonding solutions stiffen window frames, therefore reduce the material demand for frames and stiffening elements.



Climate protection solutions

Sika sealing solutions minimize the energy demand of buildings and reduce their Carbon Footprint.



Air quality solutions

Products based on **i-Cure**® technology have very low emissions and ensure good indoor air quality.

WHO WE ARE

Sika (Thailand) Limited was established in 1989 as a 100% foreign owned company, a subsidiary of Sika AG-a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, façades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature high quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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



HEAD OFFICE/FACTORY EASTERN BRANCH

700 /37 Moo 5 Amata Nakorn Estate
Bangna - Trad Rd. Km. 57, Klong Tamhru
Muang District, Chonburi 20000
Phone : +66 3810 9500
Fax : +66 3821 4286
E-mail : sikathai@th.sika.com
east@th.sika.com

NORTHERN BRANCH

250/13 Chiangmai - Lampang Rd.
Paton, Muang District, Chiangmai 50300
Phone : +66 5341 2658-9
Fax : +66 5341 2657
E-mail : north@th.sika.com

SOUTHERN BRANCH

103/16 Moo 5 Chaloem Phra Kiat Rd.
Rassada, Muang District, Phuket 83000
Phone : +66 7626 1151
Fax : +66 7626 1152
E-mail : south@th.sika.com

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