WHAT'S NEW

AFRICA CUSTOMER MAGAZINE



SIKA AT WORK

ALGERIA - RAIS HAMIDOU SEWER

ANGOLA - LUANDA TOWERS

EGYPT - CAIRO METRO LINE 3

ETHIOPIA - KALITI'S WASTE WATER TREATMENT PLANT

SOUTH AFRICA - DISHABA SILOS

NIGERIA - LAGOS BLUE LINE RAIL MASS TRANSIT

IVORY COAST - CIM IVOIRE CEMENT FACTORY

MOZAMBIQUE - CAHORA BASSA DAM

INNOVATION

SIKAPROOF® FULLY BONDED WATERPROOFING SYSTEM

12

NEWS

INAUGURATION OF 2 PRODUCTION PLANTS IN EAST AFRICA

SIKA IS EXPANDING ITS PRESENCE IN AFRICA

EVENTS

SIKA TUNISIA, 60 YEARS CELEBRATION ROAD SHOW SIKA ACADEMY IN CAMEROON THINK BIM, THINK SIKA



EDITO



Dear Customer,

It is exciting to be able to present you our first Sika News Africa magazine to highlight What's New in Africa.

Sika continues to execute its strategy of profitable growth through emerging markets and in particular in Africa which has been delivering continuous double digit sales growth since 3 last years improving as well its profitability, thanks to the commitment of all Sika Africa with more than 700 employees and the permanent commitment to serve always better our customers.

By 2050 the continent's population will double from 1 to more than 2 billion people. This unique never experienced demographic explosion will lead to

rapid urban growth with megacities across the continent. Strong economic growth is expected with a 5 to 7% annual GDP increase on the next 5 years thanks to natural resources such as oil, minerals and agriculture.

Accordingly the needs for infrastructure, residential, industrial zones and commercial buildings will be more and more important. All of these economic factors have a strong correlation with the construction market and Sika has invested locally to be the unique best partner to provide solutions and technical support close to customers for African countries.

Sika brings its expertise and transfers its know-how to contribute to an improvement of the quality of construction and Industry in various applications fields. Our model is based on customer training, on-site assistance and consulting to all construction and industry stakeholders.

Sika as a local producer and solutions providers can assist all customers in more than 18 African countries with local sales team, technical assistance, R&D experts being always available to customers locally.

Sika in Africa is highly committed to :

- support its customers
- provide innovative solutions
- continuously improve and transfer in Africa his best technologies and processes to facilitate daily work of our customers
- develop and adapt products, solutions, advise and application to the needs of its customers

This magazine has the objective to inform you on our continuous ambition and passion to serve our customers being close to their needs. You will have flavor of some of the construction projects where Sika products and solutions are applied as well as which are our latest investments to enhance our footprint with new companies and new factories to always be closer to our customers.

Thanks all for the trust you have in Sika Africa and be sure of our commitment to always look for improving our service.

Wish you to enjoy reading What's New in Africa.

Jean de Martres Africa Area Manager

WHAT NEW'S ? #01 2018









5 SIKA AT WORK

Algeria, Angola, Egypt, Ethiopia, South Africa, Nigeria, Ivory Coast, Mozambique

12 SIKA INNOVATION

Product focus : SikaProof®

14 SIKA NEWS

Official inauguration of 2 production plants Sika is expanding its presence in Africa

16 SIKA EVENT

Road Show Think Bim, Think Sika Sika Tunisia 60 Years Celebration



ALGERIA RAIS HAMIDOU SEWER

The Raïs Hamidou sewer (Algiers) is one of the essential links in the overall waste water scheme of the Algiers agglomeration.

Running along the coast for a total length of 12 kilometers, this project is intended to collect all the sewers currently discharging at sea and to route them to a treatment plant located east of Algiers.



Owner: ADREW Alger Project management: COSIDER M35 Control laboratory: Technical Hydraulic Control Design Office: CTH

The construction of the collector was carried out in four stages.

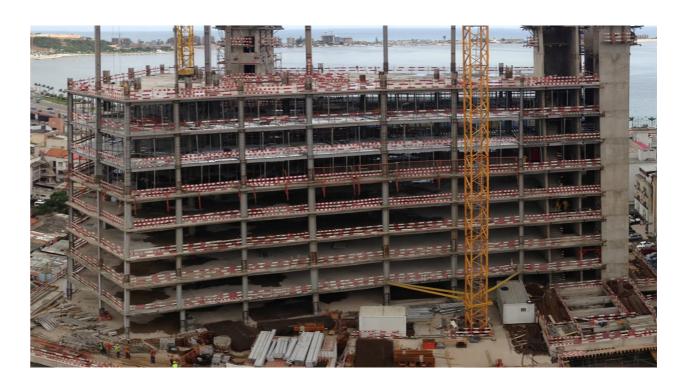
The fourth part is located between downtown Raïs Hamidou and its port. It is a tunnel 3500 m long and 2460 mm in diameter, consisting of 17 cm thick concrete segments.

The customer asked for a high-strength concrete with a 30-minute rheology maintenance, a formwork removal after 5 hours and a good appearance.

The product selected is Sika Viscocrete Krono 22 HE.

A product with a high-performance, water-reducing superplasticizer perfectly adapted to precast thanks to a very strong reduction of water, high initial strengths, a good facing, and an excellent durability. Sika Viscocrete Krono 22 HE also reduced the temperature and the heating time to double or triple the cycle of mold rotation .

SIKA **AT WORK**



ANGOLA LUANDA TOWERS

This large 31-storey building is a residential and commercial complex in the center of Luanda with a large car park adapted to the needs of future residents and customers.

The requirements of the customer were based on the aesthetics, durability and quality of the proposed solutions.



Owner: Vista Club Architect: Gabinete Projecto General Contractor: Casais Angola

The Sika solution was selected because it combined the technical proposal and the support to the contractor on site.

The basement was waterproofed with SikaTop® Seal 107, a flexible 2-components mortar. The car park floors were protected with an epoxy coating, Sikafloor® 264 applied on an epoxy primer Sikafloor® 156.



EGYPT CAIRO METRO LINE 3

Cairo Metro Line 3 is a main line of the Cairo Metro mass transit system in Greater Cairo. Currently, the line connects Attaba in East-central Cairo with Abbasia and Heliopolis to the Northeast.

The total length of the line will be approximately 30.6 km which will be implemented in four phases.

Phase 4A Consists of four main underground stations.



Owner: Egyptian Ministry of Transport Egypt's NAT Consultant: ACE - Muharram Bakhoum Consultancy office Contractor: Joint Venture between VINCI Construction Grands Projets and Bouygues Travaux Publics and Egyptian partners, Orascom Construction and Arab Contractors

It is required to clad all walls inside the metro stations with ceramic tiles of small to medium sizes which leads to a lot of joints.

They will be filled with tile grout with aesthetic appearing through high performance and bonding system with C1 bonding strength according to EN 12004.

SikaCeram®-100 is a single component, ready to use tiling adhesive mortar combining cement with selected grades of silica sand and several admixtures.

It only requires addition of water and can be used for ceramic, natural and reconstituted stone tiles and all type of high absorption ceramic tiles, small and medium size.

SikaTileGrout® is a fine powder, which requires only the addition of water to produce a smooth paste that is suitable for grouting ceramic tiles.

It contains selected hydraulic binders, organic binder, waterproofing materials, and inert hard aggregates. It is formulated in different 6 colors to meet the project request.

SIKA **AT WORK**



ETHIOPIA WATER TREATMENT PLANT

The project refers to the design and construction of the civil and electromechanical works for the Waste Water Treatment Plant in Kaliti, which is under the frame of a greater environmental upgrade project of Ethiopia's capital, Addis Ababa.



Owner: AAWSA (Addis Ababa Water & Sewerage Authority)
Specifier: AKTOR, Contractor: AIKTOR

The design of the project, will ensure the necessary sewage treatment so that the final effluents can be used for irrigation purposes, disposing at the same time the minimum possible operational and maintenance cost of the electromechanical equipment.

The main challenge that our products had to solve was related with quality construction joints and anchoring.

Also, our products had to provide impermeability to the concrete used in the construction.

Sika has proposed Sika Waterbar, Sika Anchorfix 1, SikaflexPro 1, Sikaflex Construction, Sikadur 31 for waterproofing, sealing and bonding.

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SOUTH AFRICA DISHABA SILOS

Sika's world-renowned Carbon fiber structural strengthening system, Sika Carbodur, was specified by Anglo Technical Division for a silo structural strengthening project in Limpopo.

The project commenced in June 2016 at the Dishaba Platinum Mine situated between Northam and Thabazimbi, where two coal storing silos required structural strengthening.



Contractor: Teichmann Structures

Sika CarboDur M consists of pultruded carbon fiber reinforced polymer (CFRP) laminates bonded with Sikadur-30, a thixotropic, structural two-part adhesive based on resins.

By completion of the project, 950m of Sika CarboDur M614 (60mm wide x 1.4mm thick) laminates had been bonded onto the silos. As a final protective coating on the silos, Sikagard-550 W Elastic, a highly elastic, thixotropic coating available in various shades, was applied.

Based on UV-curing acrylic dispersion, with excellent crack-bridging properties even at low temperatures, Sikagard-550 W Elastic provides high diffusion resistance against CO2 as well as high resistance to weathering.

Solvent-free and water vapour permeable, Sikagard-550 W Elastic has a reduced tendency to dirt pick-up and contamination.

SIKA **AT WORK**



NIGERIA LAGOS BLUE LINE RAIL MASS TRANSIT

Lagos being one of the most populous states in Nigeria have had the challenge of transportation over the years. The Government of Lagos state came up the rail system to reduce waiting times and travelling time within the metropolis.

The Lagos Line Rail Mass Transit would be the first in the country. The line will run a total distance of 27.5 km which will be served by 12 stations.

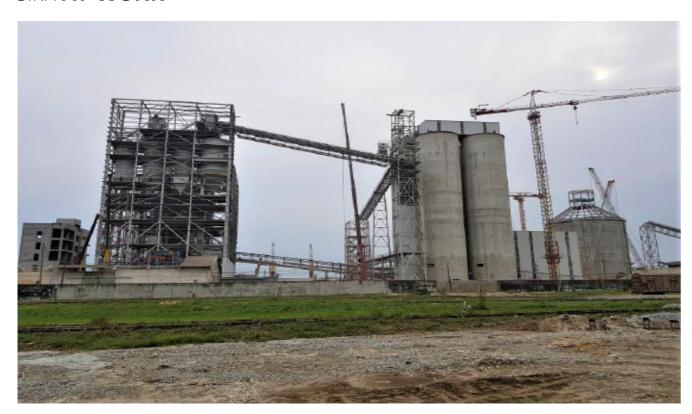
Also included in the line are a 4.23 kilometer long coastal elevated track and a 530 meter long sea crossing bridge.

The customer asked for High performance concrete for piling and other civil works.

Owner: Lagos Metropolitan Area Transport Authority (LAMATA) Contractor: China Civil Engineering Construction Corporation (CCECC)

Sika has proposed a concrete admixture, Sika Tempo-10 Plus that suited the needs of the client. Technical support also was rendered at the start through concrete lab trials and still on-going to support the project.

f 8



IVORY COAST CIM IVOIRE CEMENT FACTORY

CIM IVOIRE is producing and selling cement and cement products as well as the research and exploitation of quarries of aggregates.

The company is launching the construction of a cement grinding unit in the port of Abidjan, with a production capacity of more than 2.6 million tons per year.



Owner: CIM IVOIRE
Controller: INTERCEM
Project Manager: IC CONTRACTOR

This extension requires :

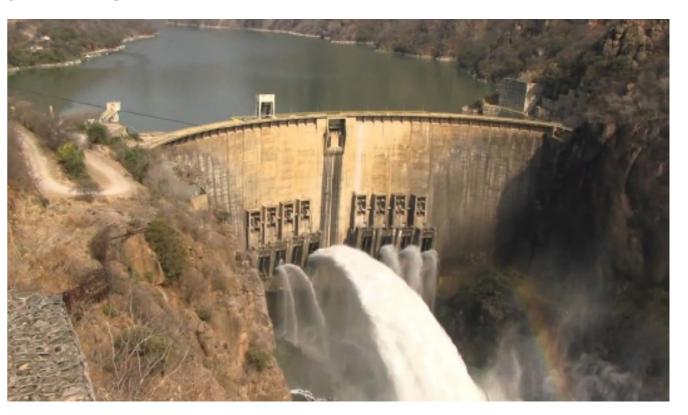
- The construction of 4 concrete silos with a capacity of 5,000 tons of cement each
- The refurbishment of the 2 existing silos to increase their durability and their resistance to aggressive weather conditions.

It is also necessary to protect the 6 silos against CO2 diffusion, ageing and aggressive weather.

For the construction of the new silos, Sika has proposed Sika® Viscocrete® Tempo 12, superplasticizer, high water reducer and Sika Plastiretard, set retarder.

The 2 existing silos were repaired with the mortar SikaTop® 121 and then protected with the Sikagard®-552 primer / Sikagard®-550 W coating system.

SIKA **AT WORK**



MOZAMBIQUE CAHORA BASSA DAM

The Cahora Bassa Dam, built in the Portuguese colonial period is located on the Zambeze River in Tete, Province of Mozambique.

Its reservoir is the fourth largest in Africa, with a maximum length of 250 km, 38 km of separation between the shores, occupying around 2700 $\rm km^2$ and an average depth of 26 meters.



Owner: Hidroeléctrica de Cahora Bassa. Contractor: PROZINCO

The refurbishment project, was prepared by a designer in Portugal, where they were guided by high quality products, as well as the proximity of SIKA technicians in Mozambique

Sika has proposed solutions for refurbishment, sealing and protection of the dam :

SikaTop® Armatec® 110 Epocem (5 tons), Sika® Ferrogard® 903 (6 tons), Sikadur® 52 ZA (300liters), Sika® Monotop® 612 (200 tons), Sika® Monotop® 620 (100 tons), Sikagard® 670 W Elastocolor (8 tons)

SIKA INNOVATION



FULLY BONDED WATERPROOFING SYSTEMS

Basements and other below ground structures are exposed to aggressive ground conditions and stress. The function of the waterproofing should be engineered to include the protection of the concrete structure itself against the potentially harmful influences of aggressive natural in soil and ground or sea water.

SikaProof® is a high flexible FPO membrane system with crack bridging ability, high resistance against chemical mediums and gas in natural soil and groundwater and high durability. The fully bonded waterproofing system prevents any lateral water underflow in the event of a damage and is the back-up waterproofing barrier.

The SikaProof® consists of two alternative methods of installation:

The pre-applied SikaProof® A system

Means that the membrane system is installed in the formwork before the reinforcement and concrete are placed. The structural concrete is casted directly onto the membrane.

The SikaProof® A membrane system can easily be applied on the blinding concrete for the base slab and to the prepared vertical The SikaProof® consists of two alternative methods of installation:

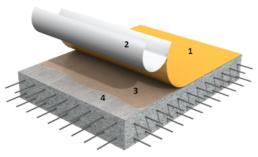
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1 FPO membrane
2 Protective fleece
3 Concrete

The post-applied – SikaProof® P system

Means that the self-adhesive membrane system is installed directly onto the hardened concrete surface. The bond to the surface is created and enhanced by the system primer.

The SikaProof® P system can be easy applied on existing prepared concrete structures in open excavations on vertical walls and horizontal areas.



- 1 FPO membrane 2 Protective release liner
- 3 Primer
- 4 Concrete

SikaProof® A&P systems are adhered and bonded together using preformed adhesive strips and/ or detailing tapes. Therefore no specialist heat welding with machines or hot-air guns is required. The entire system is cold applied which makes the installation fast and secure with high time and cost efficiency.

SikaProof® A&P systems can be used for new structures as well as for the renovation of existing basements structures and for a variety of other different more and more demanding applications :

- For dry basements in commercial and residential buildings such as car parks, archives, technical rooms, living areas...
- For watertight basements and below ground structures such as leisure facilities, metro stations, underpasses, service rooms...

The fully bonded waterproofing systems SikaProof® have been tested according to ASTM and German standards and have got the CE marking.

First application in Africa, Grand Théâtre in Rabat, Morocco

Designed by the architect Zaha Hadid, the construction presented a problem of water-proofing with a high water table depending on the tides and the aggressiveness of the marine environment.

SikaProof A system was chosen to treat the basement, a total area of 15,000 $\rm m^2$ including 1,800 $\rm m^2$ of walls and more than 300 piles.



Owner: Agency for the Development of the Bouregreg Valley / Contractor: SGTM / Design Office / Omnium Technologique / Control Office: DEKRA

OFFICIAL INAUGURATION OF 2 PRODUCTION PLANTS

In November 9th in Dar Es Salaam and in November 11th in Addis Ababa, the local Sika companies have organized the inauguration events with customers, local ministers and ambassadors and Sika Group Regional managers, Ivo Schaedler, Regional Manager EMEA and Jean des Martres, Africa Area Manager.

The inauguration of the first productions plants in Ethiopia and Tanzania it's an important step of the development in these countries.





These new factories are part of the systematic implementation of Sika strategy in Africa. Sika is playing a pioneering role in setting up local production and this will bring significant competitive advantages.

Customers will benefit from product formulations that are perfectly adapted to the raw materials and local requirements, as well as from shorter delivery times. This step creates a foundation for further growth in these promising markets.

SIKA IS EXPANDING ITS PRESENCE IN AFRICA







- 1 New plant in Cameroon
- 2 New plant in Senegal
- 3 New plant in Angola

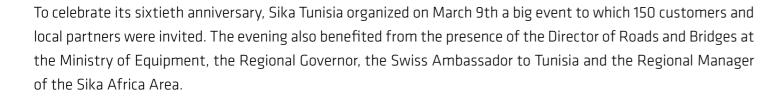
Sika has opened a new facility in the Angolan capital, Luanda.

In addition to the production of concrete admixtures, mortar products will also be manufactured locally. The first facilities for concrete admixtures have been installed in Cameroon and Senegal.

Following the foundation of the local subsidiaries in 2016 and 2017 respectively to address the developing market potential the latest investments will enhance the local supply chains footprints.

SIKA **EVENTS**





Sébastien de Betancourt, General Manager of Sika Tunisia welcomed the guests and said in his interview with the local media "The whole team Sika is very happy to celebrate today with its customers and partners the 60th anniversary of Sika Tunisia.

Driven by innovation, the coherence of our approach to the market and the partnership we have always developed with the construction industry, Sika is the historic leader in the market.

Sika Tunisia will continue its innovation policy and will launch this year new products in the waterproofing market, liquid and synthetic high reflectivity roofing membranes and facade waterproofing."

Rita Adams, Ambassador of Switzerland to Tunisia, stressed the importance of relations between Tunisia and Switzerland. She said that Sika Tunisia is a good example for Swiss companies in Tunisia. 90 Swiss companies operate in Tunisia and employ 13,000 people. Inter-country trade is becoming more balanced, around \$ 350 million.







In his speech, Jean De Martres, Sika Africa Area Manager, highlighted the exceptional results of Sika in 2017 with 9% growth (CHF 6.2 million) and an operating profitability of + 12.7%: "The success of Sika was confirmed in 2017 by new records. »

And he added "The Sika Group's strategic goals for 2020 are secured by key new investments in 2017: 3 new subsidiaries, 9 new plants and 7 acquisitions.

The Sika group is ready to invest more in Tunisia to support its development in the local construction market. "

SIKA ROAD SHOW

To present products and train small and medium size contractors, Sika goes out to meet its customers.

In Morocco and Tunisia, in partnership with local distributors, a team of Sika technicians travels throughout the country and approaches customers by settling for one or two days in a point of sale.

Contractors discover the main products, train themselves in their application and can find the answers to the problems they encounter on their sites.



SIKA TUNISIA



SIKA MOROCCO

SIKA ACADEMY IN CAMEROON

The Sika Academy concept was created to train company staff and customers to products sold by Sika Cameroon.

It started in March with the "Flooring event", a presentation of flooring solution and application method. Local contractors and technicians from Algeria, Angola, Ivory Coast, Senegal and Tunisia participated in this event.

Sika Cameroon has the goal of organizing at least one session per month to present Sika solutions to its customers.



SIKA **EVENTS**



THINK BIM, THINK SIKA

On January 9th, 2018 a conference was organized on the BIM concept by Groupe HESTIM, an engineer's school in Casablanca, Morocco. Sika has presented the BIM objects "tool box" for specifiers.

WHAT IS BIM?

BIM (Building Information Model) is the geometric representation of a building in 3D, made on a computer for the purpose of analyzing, controlling and simulating some behaviors. BIM is therefore a structured set of information about a building, existing or planned.



It is a collaborative way of working, supported by software tools that has transformed the way buildings are designed, analyzed, constructed, and managed.

The goal of BIM is:

- to increase the quality & performance of the building
- to improve the communication of all involved parties
- to reduce potential liabilities for all involved parties with preconstruction simulations and clash detection
- to reduce the cost of the building (time factor)
- to change the construction of a building to an innovative, profitable and high quality result

To participate in this new process, Sika provides a range of systems as BIM objects, embedded with product data and geometry. These objects can be integrated into the building information model to help accelerate the planning process and improve data quality

Sika BIM objects are available on bimobjects.com

We understand that architects, designers and engineers spend a lot of time drawing and specifying, so we provide BIM objects which make it effortless to embed our product data into their BIM workflow.

















INNOVATION AND SUSTAINABLE SOLUTIONS FOR CONSTRUCTION AND INDUSTRY

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Sika Cameroun
Sika Djibouti
Sika Egypt
Sika El Djazair
Sika Ivory Coast
Sika Kenya
Sika Mozambique
Sika Morocco
Sika Nigeria
Sika Senegal
Sika Tanzania

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