

# SIKA FULL RANGE SOLUTIONS FOR CONSTRUCTION:



WATERPROOFING



CONCRETE



REFURBISHMENT



SEALING AND BONDING



FLOORING



ROOFING

## FOR SIKA GCC INFORMATION:



[gcc.sika.com](http://gcc.sika.com)

### WHO WE ARE

Sika AG, Switzerland, is 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.



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# ROOFING LIQUID APPLIED MEMBRANES

Sikalastic®-851  
Sikalastic®-560 GCC  
Sikalastic®-614  
SikaRoof® MTC SYSTEMS

BUILDING TRUST



BUILDING TRUST





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# Sikalastic®-851 ROOT RESISTANT FOR PODIUMS AND LANDSCAPED AREAS

Sikalastic®-851 is a two part, elastic, 100% solids, very fast curing and coloured modified polyurethane liquid applied membrane with good chemical resistance. The product is very fast to apply with large areas being able to install quickly.



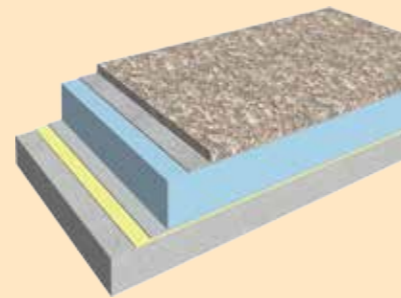
Sikalastic®-851 is ideal for podium type applications requiring fast application, root resistance, and being fully bonded to the substrate, removal of the danger of water migration beneath the membrane if damaged.

According to USGBC LEED Rating Sikalastic®-851 conforms to the requirements of LEED EQ Credit 4.2: Low -Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100g/l. In addition Sikalastic®-851 has been tested in accordance with DIN 4062 for root resistance and meets the European Standard ETAG 033 for the use as a waterproofing membrane on concrete bridge decks.



## PODIUM SYSTEMS WITH Sikalastic®-851

Spray applied waterproofing membrane system which is elastic, crack-bridging, rapid curing polyurethane waterproofing membrane used for concrete structures.



**Consumption:** 1.05 kg/m<sup>2</sup> /mm  
**Substrates:** Concrete structures  
**Primer:** Sikafloor®-161 0.25-0.35 kg/m<sup>2</sup>  
**Broadcast:** Quartz sand 0.3-0.8mm  
 Graded sand 1 kg/m<sup>2</sup>.  
 Broadcast to excess and cleaned next day to remove excess.



This system is not a final finish and is not UV-resistant. It is usually used as a waterproofing layer under paving or landscaped areas.

## TYPICAL APPLICATION



The epoxy-based primer is applied onto the substrate in order to close the pores and to be able to apply a blister-free waterproofing layer. Primer should not just be rolled or poured; in order to avoid the formation of pinholes, the primer must be brushed into the concrete surface. Broadcast the primer with quartz sand 0.3-0.8mm. The quartz sand must be firmly bounded (grain and grain) in the primer and excess material must be removed after the curing of the primer.



Crack-bridging waterproofing coating system below pavers and/or paving system.



The waterproofing membrane has to be applied by 2-component hot spray airless application in successive passes until the targeted wet film thickness is achieved.



Root resistant waterproofing coating system below landscaped and planted areas.

## USES

- Bridgedeck waterproofing membrane underneath mastic asphalt
- Bund lining for water retaining structures
- Roof Waterproofing
- Waterproofing on walkways and balconies
- Waterproofing on floors and car park decks
- Tank, bund and pit lining in sewage and waste water
- Treatment plants

## KEY BENEFITS

- Very fast reactivity and curing time
- Almost immediate return-to-service time
- Applicable in temperatures from +1°C to +50°C
- Performs in constant dry temperatures from -30°C to +100°C
- Excellent crack bridging properties
- Good chemical resistance
- Excellent abrasion resistance
- Seamless
- No water under flow
- Fully bonded
- Root resistant

# Sikalastic®-560 GCC CO-ELASTIC TECHNOLOGY

## SIKA CO-ELASTIC TECHNOLOGY (CET)

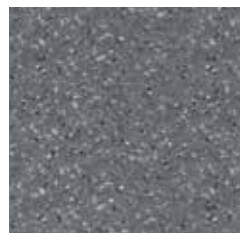


**CET (Co-Elastic Technology)** combines the high performance of a polyurethane dispersion with the well-known properties of an acrylic, providing an improved overall performance compared to conventional acrylic dispersions.

**Sikalastic®-560 GCC** is the ideal solution for any waterproofing application on exposed flat roofs. It can be equally used for large surfaces and for waterproofing details and repairs.

The product is water based, VOC free, complies with the SRI reflection requirement of Energy Star, LEED and Estidama, and is formulated with Sika's Co-Elastic Technology (CET). Sikalastic®-560 GCC shows excellent resistance to UV, yellowing and weathering and is also water vapor permeable.

## CAN BE USED ON MANY MATERIALS



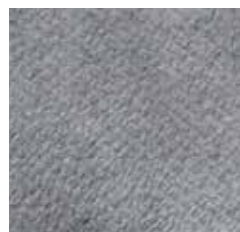
Concrete



Mortar



Brickwork



Roofing felt



Bituminous sheets



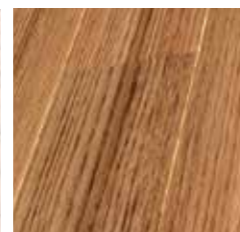
Metal



Fibre-cement



Roof tiles

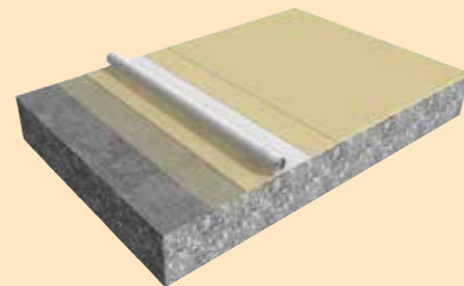


Wood

## ROOFING SYSTEMS WITH Sikalastic®-560 GCC

### FLAT ROOF WATERPROOFING

Sikalastic®-560 GCC is a cold-applied, one-component waterborne liquid applied waterproofing membrane, highly elastic and UV-resistant. It is suitable for use in hot climatic conditions.



**Dry film thickness:** Min. 0.35 mm – 0.75mm  
**Total consumption:** Min. 1.0 kg/m<sup>2</sup> – 2.1 kg/m<sup>2</sup> depending on application – please refer to Sika's Technical Service Department for further information.

**Substrates:** Cementitious, brick, stone, metals and existing bituminous membranes

**Primer:** Please refer to Sikalastic® Primer chart

### ROOF COATING

For UV-stable coating, to extend life of old roofs or as reflective coating to enhance energy efficiency. Suitable for corrugated metal roofs.

## TYPICAL APPLICATION



For waterproofing new roofs



For refurbishment & for lifecycle extension of old roofs



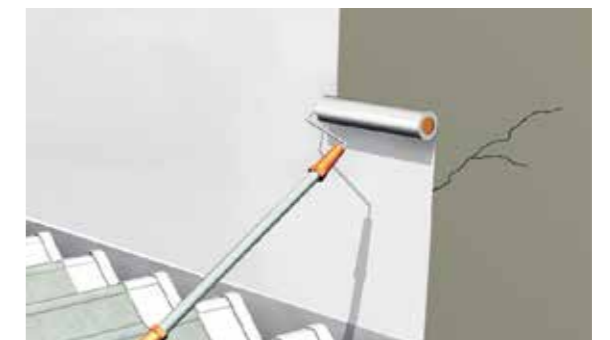
As reflective coating to enhance energy efficiency by reducing cooling costs (in white colour)



For roofs with many details and complex geometries



For roof detailing in combination with other roofing solutions



For repairing work on roofs and walls

## KEY BENEFITS

- UV resistant and resistant to yellowing and weathering
- Highly elastic and crack-bridging
- Non-toxic and VOC compliant water based coating
- One component - ready to use
- Excellent adhesion on porous and non-porous substrates
- Seamless, fully bonded waterproofing membrane
- Water vapour permeable

## APPROVAL STANDARDS

- Conforms to the requirements of LEED EQ Credit 4.2: Low – Emitting Materials:
- Paints & Coatings: VOC < 100 gm/lt
- USGBC LEED rating: conforms to LEED SS Credit 7.2- Heat Island Effect-Roof,
- Conforms to Estidama requirements for reflectivity

# Sikalastic®-614 MTC TECHNOLOGY

## MOISTURE TRIGGERED CHEMISTRY



### MTC (Moisture Triggered Chemistry) Systems

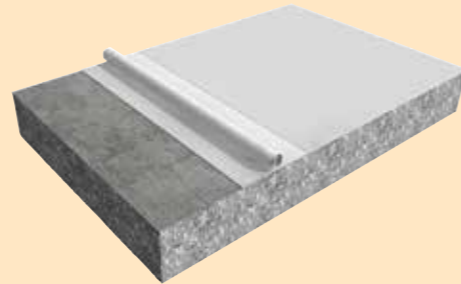
incorporates a unique technology that allows the material to use atmospheric moisture to trigger the curing process. This means the waterproof membranes are capable of curing in a wide range of conditions including extreme temperature ranges and humidity variations. Unlike traditional polyurethane systems they do not release CO<sub>2</sub>, which often causes gassing, and application is not delayed by adverse weather conditions. It is not recommended to install the MTC systems when rain is imminent, as rainfall could affect the appearance of the product. However, once applied the membranes are waterproof and will not show an adverse reaction to water. Within the MTC Systems is a Sikalastic® membrane that cures to provide completely seamless waterproof protection. Its liquid application means it can be easily applied to all complex detail areas.



## ROOFING SYSTEMS WITH Sikalastic®-614

### REINFORCED ROOF WATERPROOFING

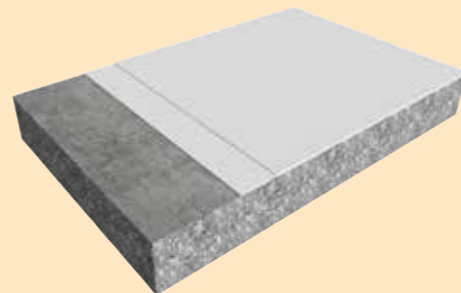
For waterproofing solutions in new construction and refurbishment projects. For projects with surfaces subject to probable movement and light/ maintenance foot traffic.



**Total thickness:** 1.4 mm approx.  
**Total consumption:** 2 l/m<sup>2</sup> approx.  
**Substrates:** Concrete, metals, wood, tiles, asphalt, bitumen felt, etc.  
**Primer:** Please refer to product data sheet

### ROOF COATING

For UV -stable coating, to extend life of existing structurally stable roofs.



**Total thickness:** 0.85mm approx.  
**Total consumption:** 1.25 l/m<sup>2</sup> approx.  
**Substrates:** Concrete, metals, wood, tiles, asphalt, bitumen felt, etc.  
**Primer:** Please refer to product data sheet

## TYPICAL APPLICATION



Waterproofing of new roofs with all shapes and sometimes even with a lot of details like thresholds/sills, terminations to masonry, drains and overflows and more penetrations.



Refurbishment of existing roofs with complex detailing.



Detailing on bituminous membranes



Flexible waterproofing below tiles

## KEY BENEFITS

- Fast curing- Rain resistant after ca. 10 min
- Reemat compatible – easy detailing
- Wide range of application
- Tested according to DIN EN 14891 for use beneath ceramic tiling bonded with adhesives
- Freedom of design for complex roof shapes.
- Completely seamless fully-bonded waterproofing system reducing the risk of leaks due to failure of joints.
- Cold applied – cold fusion bonded, zero heat, zero flame application
- No fire watch required during application
- Compatible with bitumen

## APPROVALS

- ETAG-005 (W2) 10 years Waterproofing
- Resistance to fire spread ENV 1187 B roof(t1) / B roof(4)
- DIN EN 14891: 2012-07 Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives.

# SikaRoof® MTC Systems FIRE PERFORMANCE

## THE FIRE RESISTANT ROOFING MEMBRANE



**Sikalastic®-601 BC/621 TC** offer a state of the art liquid applied roofing membrane offering amongst the highest fire ratings. Sikalastic®-601 BC/621 TC contain fire retardant crystalline additives based on inert materials which release a water vapour blanket under heat, resulting in an endothermic reaction.

As a secondary fire retardant reaction, when Sikalastic®-601 BC/621 TC comes into contact with heat, the top film will eventually produce a carbonated crystalline coating. The char is a non-flammable compound and will ultimately act as an insulator between the fire and the membrane beneath.

Sikalastic-601 BC/621 TC offer outstanding performance under 'UV' and have been used in the Middle East for over 20 years. Systems are available offering high levels of reflection, surpassing the requirements of Estidama and LEED. Special colours can be produced as required.

### KEY BENEFITS

- Reduced weather sensitivity during application thanks to MTC
- Easy and quick application with Sika® Reemat
- Ideal for details and roof repair
- Reduced waste material as there are no cut-offs or backing plastic to dispose
- Low investment required for application equipment

### ZERO FLAME ZERO HEAT

Cold applied and with no need to use a torch, hot air guns, hot gas guns or heating equipment such as bitumen boilers, Sikalastic® presents no fire risk during application or once in place, and gives contractors an opportunity to lower insurance premiums. Once installed the system achieves fire ratings.



Detailing on bituminous membranes



Easy and fast application

### SikaRoof® MTC FLASHING

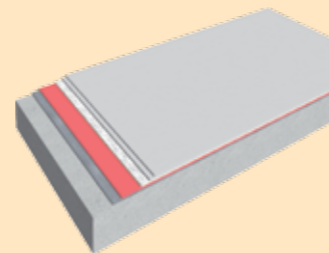
Sikalastic® can also be used in conjunction with bituminous felt to provide seamless waterproofing around all detail areas including upstands, plant, equipment, and other roof protrusions.



- Sikalastic®-621 TC for top coating
- Sikalastic® Reemat for reinforcement
- Sikalastic®-621 TC for base coating
- Layer thickness: 1.8 mm
- Consumption: 2.8 kg/m<sup>2</sup>

### SikaRoof® MTC 12, 15, 18

For UV stable coat, for extended life expectancy on old roofs or as reflective coating to enhance energy efficiency – or for high performance Waterproofing solutions for new construction and refurbishment projects.



- Sikalastic®-621 TC for top coating(s)
- Sikalastic® Reemat for reinforcement
- Sikalastic®-601 BC for base coating
- Appropriate Sika® Primer
- Existing build-up on concrete deck
- Layer thickness: 1.2 – 1.8 mm
- Consumption: depending on system chosen

# SUSTAINABLE ROOFING SOLUTIONS

**Sika is committed** to putting high-performance solutions into practice for the benefit of our customers and for a sustainable development.

## SUN REFLECTIVITY

The benefits of solar reflective materials and colours are well known and understood in warm climates around the world. With urban density increasing, the "heat island" (Albedo) affect is impacting on cities at an ever increasing rate.

A significant contribution to reducing the Albedo affect can be made by simply replacing dark roof surfaces with a lighter colour, ideally white. Sika roofing systems include solutions which allow the reflection of up to 83% of the heat in the sunlight.

Ronnen Levinson & Hashem Akbari's December 2007 report "Potential Energy Savings and Environmental Benefits of Cool Roofs on Commercial Buildings" demonstrated that by changing from a relatively low solar reflectivity light grey membrane to a higher reflectivity white membrane, large energy cost savings could be made, therefore significantly reducing emissions of carbon dioxide (CO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>) and mercury (Hg).



## ESTIDAMA

Estidama means 'sustainability' in Arabic and is the sustainability initiative of the capital of the United Arab Emirates, Abu Dhabi.

Estidama arose from the need to properly plan, design, construct and operate sustainable developments with respect to the traditions embedded within the local culture on one hand and the harsh

climatic nature of the region on the other. To this end, Estidama encourages project owners, developers, design teams and even residents to think differently about how they approach the design and planning process.

Within Estidama is the Pearl Rating System, a green building rating system that is utilized to evaluate sustainable

building development practices in Abu Dhabi.

The Pearl Rating System awards projects points for different credits that are grouped under a number of general categories. Points are added up to a final rating which ranges from One Pearl to Five Pearls.



## LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN)

LEED is the world's best known green building certification system. It was developed in 2000 by the USGBC (US Green Building Council) and is most relevant for North America, but is also used in many other regions around the world, such as South America, Europe and Asia. It is based on a set of rating systems where specific topics are assessed, such as transportation, recycling content, etc. The current LEED program is not LCA based.

### How can Sika Roofing Systems contribute to your LEED certification?

Sika Sarnafil's EnergySmart Roof® membranes and Green Roof systems can contribute to multiple points in LEED's Sustainable Sites category. This is done by replacing natural landscape removed in the construction process with a green (vegetated) roof, controlling stormwater runoff and helping reduce the heat island effect.

- Credit 6.1 Stormwater Design – Quantity Control – 1 point
- Credit 7.2 Heat Island Effect – Roof – 1 point