

Watertight?

Sika Tight!

A watertight concrete structure can be designed to “keep water in” and/or “keep water out”. Sika Australia is conscious of the fact that there is an increasing need for tight regulations and greater control on water quality and ground water protection in Australia. Concrete structures are becoming increasingly exposed to watertight issues, requiring detailed and durable systems to satisfy specifications.

Sika has an elaborate range of admixtures, water stops, coatings, membranes and repair systems that can be utilised to prevent water penetration or water loss. These systems can be accommodated to suit demands such as mechanical resistance, chemical resistance and crack bridging problems.

Some examples of Sika’s experience in recent times include:

Keeping Water In:

Application: Water Reservoir
Project: Mangerton Reservoir
Sika System: Sikadur-Combiflex
Specification: The flexible joint sealing system Sikadur-Combiflex was specified to seal all the floor and floor to wall joints in the reservoir to prevent water leaking from the structure.

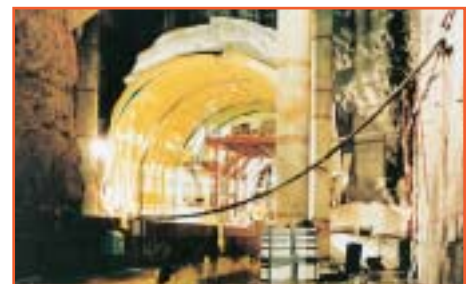


Application: Waste Water Treatment Plant
Project: Illawarra STP
Sika System: Sika Waterbars, SikaSwell S, SikaSwell Profile
Specification: The PVC Sika Waterbars were used to make all major internal and external construction joints watertight. The swellable SikaSwell Profile was used on less critical cold joints with the extrudible SikaSwell S used in difficult to access areas.



Keeping Water Out:

Application: Tunnel
Project: Sydney Harbour Tunnel
Sika System: Sikaplan Tunnel
Specification: Sikaplan Tunnel was specified as the PVC membrane for the bored section of the tunnel from the Sydney Opera House forcourt to Macquarie Street.



Application: Commercial Building
Project: Hilton Hotel Perth
Sika System: Sikaplan-15D
Specification: The PVC roofing membrane Sikaplan-15D was placed on the roof section of the hotel to prevent water from leaking through the hotel.



Sika®

The Commerce Building in the CBD of Sydney has been in place for nearly 75 years. The concrete corbels and façade sections on the building were showing signs of steel reinforcement corrosion due to carbonation over time. As a result, the building required repair work to reinstate these sections and prevent accidents from falling concrete that may break away.

BMP Group were contracted to install the required repair system. Initially the sections were cleaned down, and any spalled or damaged sections were removed. Following this, moulds were formed and placed to allow **SikaGrout 100** to be poured, thus reinstating the section. Any detailed section requiring repair was reinstated using **Sika MonoTop-615HB**. All sections were bonded using the **Sika MonoTop-610** bonding agent, which was also used to protect any exposed steel.

The final result has allowed the building to retain it's heritage appearance, as well as preventing any damage that may have resulted from falling concrete.

Commerce Building Repair



The Commerce Building during the repair stage. (Inset) The recently repaired sections.

Waverley Church Repair



The exposed corbel on the Franciscan Friary.

Repair systems being placed using Sika MonoTop-615HB and Sikadur-52.

The Franciscan Friary at Waverley in Sydney was in desperate need of refurbishment. A complete upgrade of the external corbel of the building was necessary due to severe cracking and spalling that had occurred due to corrosion of the steel reinforcement over time. In some instances the parapet walls on the roof had split, necessitating in a comprehensive repair system.

Premier Waterproofing were contracted to put the rectification system into place. Initially **Sikadur-52** injection grout was used to fill the voids where crack repair was required. Major concrete repairs were conducted using **Sika MonoTop-615HB** repair mortar. In the instances where the walls had split, booker rod was chased into the wall (perpendicular to the split) and fixed with **Sika Powerfix-1**, a fast setting anchor grout.

The final finish has allowed the church to continue "service" as usual.



Ritek!



The Zetland Apartments before and after construction.



A completed Boston Market outlet.

The revolutionary new fast erection walling system, Ritek, designed by Building Solutions, is being constructed on numerous job sites around Australia. The design calls for the use of **Sikament Eco-2AU**, a neutral set water reducer that allows excellent flow of the concrete.

The advantage of this in the Ritek wall comes during the construction. The wall consists of fibre cement sheets separated by spacers. The core is filled with concrete which must be fluid, have no segregation, and be fast setting. This will allow any early forces applied on the panel to be reduced.

This type of walling has been used on major developments in Sydney such as the Newtown multi storey apartments, the Boston Markets fast food outlets, and the multi unit complex at Zetland, with great success. This success is not only measured by the end result, but by the builders enthusiasm on site to use a high flowing, fast setting concrete – a direct result of the **Sikament Eco-2AU**.



Luxury!

The new 2 story Paddington Central Luxury Apartments in Sydney, constructed by Contracts Control, come fully equipped with refrigerator, oven, dishwasher, washing machine, dryer, and mounted television. Added to this all the units have timber floors and spacious balconies with timber deck finishes. Distinctive Joint Sealing were contracted to apply Sika sealants throughout the apartments. **Sikaflex-PRO**,

Application of Sikaflex-PRO.



the one component polyurethane joint sealant, was applied along the timber floor strips as well as along the floor to wall joints. **Sikaflex-PRO** was also used on the aluminum alpolc panels that were used on the balconies.

In the bathrooms, **SikaSil-C**, the neutral cured silicone was applied around the bath tops, basins and toilet bowls. The floor to wall joints were also filled using **SikaSil-C**.

The finished balconies.



Sika Silicones

For many years Sika has been synonymous with the polyurethane joint sealant market in Australia. Now, Sika has a range of silicone products designed to increase their presence in the sealant market, whilst giving sealant contractors and users access to quality Sika products for all occasions.

The quality Sika silicone products available to the market include:

SikaSil-C: A neutral curing construction and sanitary silicone suitable for general purpose glazing and non-porous substrates. It is low in odour, non-corrosive, has excellent UV and weathering resistance, and comes in a range of colours.

SikaSil-E: An acetic curing silicone suitable for glazing, industrial and weatherproofing applications. It has excellent weathering and ageing resistance combined with outstanding colour stability.

Sanisil: An acetic curing silicone suitable for sanitary and other construction sealing applications. It is resistant to moisture, fungus, and mildew. Ideal for use in bathrooms, laundries and kitchens.



Sika Liquid Membranes



In recent times, Sika has introduced the Sika Tite liquid membrane range to compliment their extensive range of watertight systems and solutions.

The Sika Tite range is made up of three water based products used in various sectors of the waterproofing industry.

Sika Tite-WB: a one-component water based membrane for roofs, decks, and facades. The material exhibits excellent flexibility and elongation, and accommodates movement and minor cracking of substrates. Exposure to UV light improves the weather resistance of the coating.

Sika Tite-LM: a one-component water based liquid applied membrane. Used in wet areas such as balconies, decks, bathrooms, shower recesses and laundries. The Sika Tite-LM offers a seamless seal over substrates before tiling or topping, and comes in the distinctive Sika yellow colour.



Sika Tite-BE: a water based bituminous membrane for lining planter boxes, retaining walls, ponds, gutters, roofs, silos, and existing bituminous coatings. The Sika Tite-BE can be coated over using the Sika Tite-WB, and it can be used to repair existing bituminous surfaces and membranes.



Swagman Motor Homes



An example of the Swagman motor home bonded with Sikaflex.

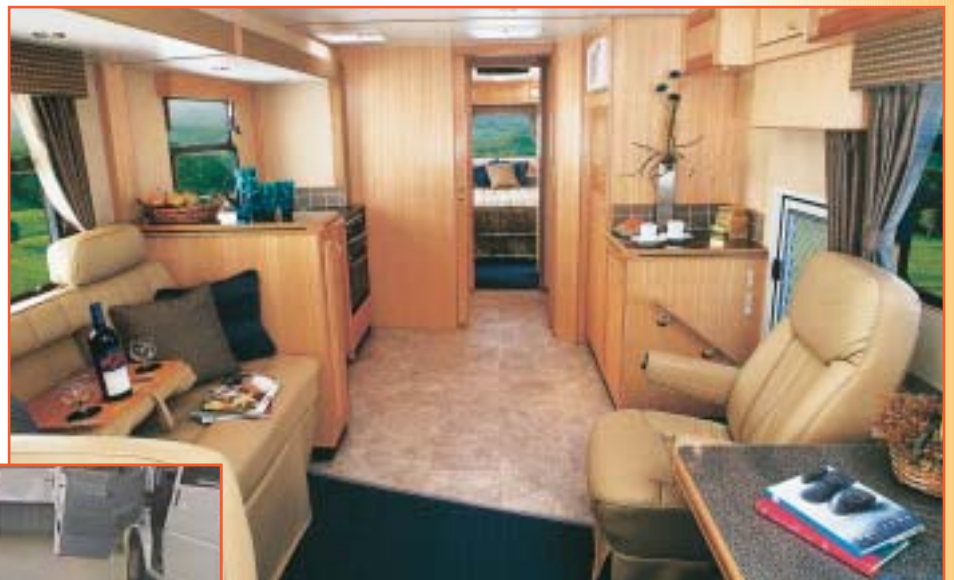
Swagman Motor Homes is a subsidiary of Cummins Engine Company Pty Ltd and is one of Australia's largest and technically advanced manufacturer's of motor homes and purpose built vehicles. Since 1984, through a culmination of design excellence and engineering innovation, Swagman have created a totally new vision for motor home living with the highest levels of luxury and livability.

Sika's extensive product range and experience in the transportation industry extends into this "special vehicle" market. Swagman uses the general sealing and bonding polyurethane's **Sikaflex-221** and **Sikaflex-252** for all of their bonding and sealing requirements.

The typical applications where **Sikaflex** is used include floor bonding, side panel bonding, bonding access doors, and adhering the front header onto the vehicle.

Sika are also active with maintenance and repair systems in the transportation industry, particularly in

showrooms, workshops and manufacturing facilities. Swagman were able to take advantage of Sika's industrial flooring range in recent times to repair an area in their quality control bay at the manufacturing site in Labrador, Queensland. The repair system included the epoxy resin injection material, **Sikadur-52**, to reinstate a number of cracks in the floor area. The industrial epoxy floor coating **Sikafloor-2430**, giving the manufacturing section a tough, durable, finish followed this repair.



The classy interior.



Large crack in the floor.

Repaired and covered with Sikafloor-2430.

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www.sika.com.au

Sika Australia have launched a new web site with a new format, more information, quicker download time, and more up to date information.

The web site contains all the up to date product data sheets in Sika's extensive range, also in a new format, allowing the user a more user friendly document.

Log on to www.sika.com.au for a closer look!



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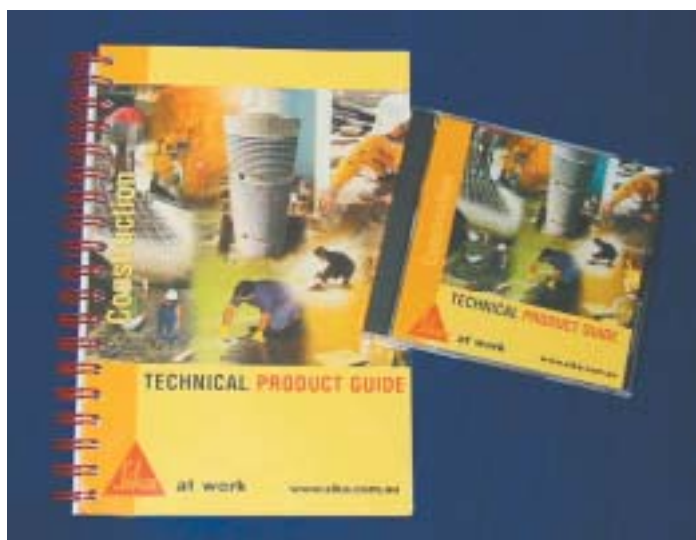
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New Look Product Guide



The Sika Product guide has taken on a brand new look. Not only does it have a new cover, it contains comprehensive technical data sheets for all of Sika's construction range.

The new ring-bound book is complimented by the Construction C.D and Technical Catalogue, all containing Sika's technical information in a format to suit your office.

Sika WA's New Home

Sika's Western Australia branch office has recently moved into larger premises due to our expansion and growth in the west.

The new office and warehouse, located in Canning Vale, have given the staff in Perth some much needed space and room to expand.



For further information on the enclosed topics, or any other product contact your local Sika office.