

Sika in the concrete mix with Hanson

Sika Australia Pty Ltd has entered into an agreement with Hanson Australia Pty Limited to supply a full range of concrete admixtures and associated concrete products to their concrete production operations Australia wide.

Hanson Australia is part of the Hanson Group; the world's number one aggregates business, based in the United Kingdom. Formerly known as Pioneer Concrete, in Australia they own over 250 concrete plants and 40 quarries. In addition Hanson manufacture asphalt, cement and masonry products throughout Australia.



The new lab

The agreement will significantly expand **Sika's** presence in the Australian concrete admixture market and allow our team of experienced concrete specialists located in all States to demonstrate to Hanson and their valued customers our leading edge technology.

In part, Hanson based their decision on awarding **Sika** the contract due to our continued investment in leading edge technology and supporting activities, such as our recently completed NATA accredited Technical Centre in Sydney. The centre will give our customers

access to high quality product, rapid technical support and training. The newly expanded concrete laboratory is divided into three separate climate controlled rooms capable of producing artificial environments in opposing seasons. Additional to the ability to create seasonal temperature control, the rooms are designed to maximise mixing and testing efficiencies, there by accelerating our customer response time.



Sika at work in the lab



Pouring Sika's ViscoCrete concrete

Along with the investment into technical support **Sika** is proud to announce that we have gone one step further with our **ViscoCrete** Technology with a major multi-million dollar investment into the construction of the first Polycarboxilate plant specifically designed for concrete admixtures in Australia. **ViscoCrete** is capable of transforming concrete into a highly fluid super-workable state or self-compacting consistency and can produce ultra high strength concrete with strengths of greater than 100 MPa for today's modern construction requirements.

Sika at Work

► Chatswood Hills Shopping Centre

Chatswood Hills Shopping Centre in Brisbane, Queensland, recently undertook renovations on the complex. Part of the upgrade involved strengthening the existing slab to allow it to support a load of 6.5 KPa.

Remedial Building Services were contracted to apply **Sika Cabodur S812** carbon fibre strips using **Sikadur®-30**. After calculating the optimal design - a combination of maximum structural strength with minimal incurred cost - the contractor began work on the floor, grinding it back to ensure adequate adhesion for the strips.

Using the **Sika® CarboDur** carbon fibre system, the contractor was able to increase the load bearing capacity of existing concrete to a level where it complied with the rigorous demands of a supermarket floor.



The Sika® CarboDur S812 in place

► Viscount Plastics



Applying Sikafloor®-261T

Viscount Plastics company has a large number of factory floor areas that are considered wet environments, as well as being subjected to heavy forklift traffic raising durability and abrasion issues. The specification called for the epoxy based, textured roll coat, **Sikafloor®-261T** to be applied.

Antiskid Industries were commissioned to place the new floor system that required a non-slip rating, but could not be broadcast with sand, so that the floor remained easy to clean. The help achieve this **Sikadur®-513** thixotrope was added to each **Sikafloor®-261T**. As a result a coarse but low profile texture finish was achieved, which was then tested by Western Geotechnics in Perth. The finish was given a 'W' classification as per AS/NZ 4586-1996.

As a result the final finish is compliant, is non-slip, and looks fantastic!



The finished floor at Viscount

► Port Kembla Underwater Grouting



Timber Pile to be repaired

Timber pile repair is an extremely difficult operation for a number of reasons, particularly when it comes to underwater restoration. The repair specification usually requires

the piles to be re-profiled before they are strengthened, and this process can be quite sensitive.

In Port Kembla recently Jetty #6 underwent a large repair. Corroseal, a Sydney based contractor with an excellent history of pile repairs, was contracted to re-

profile or replace the timber piles. The cementitious underwater grout, **Sika® Grout UW** was used to help fix new sections of timber piles to the existing concrete foundation under the water. Once the piles were reinstated, Corroseal placed the **SikaWrap®-230C** carbon fibre fabric around the cold joint between the old and the new timber sections. The joint areas were tested by C.W.Henstock engineers and were given the 'green light'.



Timber Pile fixed with Sika®Wrap

► Fish River



Applying Sikadur® Combiflex

The Fish River Water Supply company required a new sealing system to ensure that the Glen Davis Reservoir, located about 80km north west of Lithgow, remained water tight after 60 years of service.

The large 30 metre diameter below ground reservoir was built to supply the local community with water. However, the tank has been continually losing water over the years due to failed joints in the floor slab, and this has resulted in a large amount of soil erosion around the structure. Omega Building Services were contracted to apply Sikadur®-

Combiflex, a flexible hypalon jointing system, to all the floor joints and to the floor to wall joint around the perimeter of the tank. Since completing the job, the reservoir has been filled and in this time only water loss due to absorption into the concrete has been detected!



The joint layout

► Bureau of Meteorology



Applying the Sikafloor®-400N Elastic

The Bureau of Meteorology in Melbourne is based near Docklands in the heart of the city. The building has required some important waterproofing to take place on all the decks and balconies, and to achieve this, a high quality, flexible material was needed.

Hanlay Flooring were contracted to place the one part polyurethane Sikafloor®-400N

Elastic over a large number of concrete balconies and decks. The Sikafloor®-400N Elastic exhibits excellent flexibility, provides a watertight finish, and is UV resistant, so it can be used outdoors.

The durable membrane can also be walked over, leaving an excellent finish to the deck, whilst providing excellent waterproof capabilities!

► Golden Grove



SikaDur®-Combiflex sealing concrete plinths

Golden Grove Scuddles, an underground mine producing zinc, copper and gold, is located north east of Perth, and 230km from Geraldton. The mine site is built on a clay base and there is large expansion and contraction of joints during summer and winter. In many instances there is also vehicle traffic moving over the joints. As a result, the joints have failed in numerous areas, and the mine operations division needed this to be stopped.

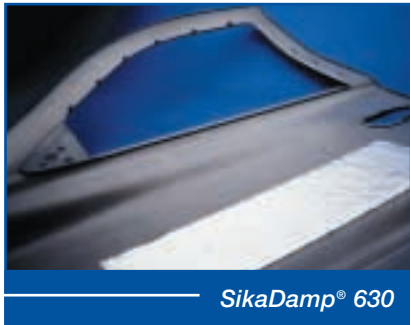
Monadelphous were asked to submit a proposal to counteract these problems, and the Sikadur®-Combiflex system was specified. The Sikadur®-Combiflex has proven to be ideal due to the extensive movement, and in areas of heavy traffic, steel plates have been placed over the top to protect the material. Also, in banded areas, the Sikadur®-31 used to bond the Combiflex hypalon in the system is protected with the chemical resistant Sikagard®-62 coating. As a result the mine site will reduce its maintenance on joint sealant repair, and be left with a durable and flexible system.



Sikagard®-62 protecting Sikadur®-Combiflex

▶ SikaDamp® 630

Any form of noise is unwelcome wherever you are. Ever get so frustrated by rattling noise or the drumming effect



SikaDamp® 630

amplified by thin-plate materials?

Sika Australia is addressing the issue by introducing SikaDamp® 630 in November 2004.

SikaDamp® 630 is a non-curing and

lightweight self-adhesive mastic patch used for the reduction of structure-borne vibration. Processed with an aluminium constraining layer, this material can be cut to size for any application. SikaDamp® 630 is suitable for any thin plate application from Appliances such as white goods (Washing Machines, Fridges, etc) to Air Conditioning Applications as well as the Marine, Automotive and Transportation industry for light weight panel vibration dampening.

SikaDamp® 630 will be available in 200mm x 500mm patches as well as 600mm x 1250mm patches. The product can easily be cut to size.

Sika Hand Cleaner Wipes

No time to wash your hands?

No worries, just use Sika® Hand Cleaner Wipes to wipe Sikaflex®, Heavy grease, Lubricants, Oils, Paint, Tar, Inks and Adhesive off your hands.

Formulated with orange oil, the Sika® Hand Cleaner Wipes leaves your hands clean and adhesive free.

Comes in a handy and economical pack size.

Contain 72 wipes per bucket. Each wipe is about the size of a piece of photocopy paper and it lasts all day.



Sika® Hand Cleaner Wipes

▶ Sikafloor®-PU

The Sikafloor®-PU is a one component, non-yellowing polyurethane coating that can be used in UV environments. The clear coating can be used over the top of concrete substrates, exposed aggregate finishes, polyurethane coatings, and Sikafloor® epoxy floor systems.

The tough, hard wearing surface that is provided by the Sikafloor®-PU allows it to be used in a number of environments where heavy traffic is expected. The material also exhibits good chemical resistance and is thus ideal in areas where spills are likely to occur.



The Sikafloor®-PU finish



▶ Sikagard®-715W

A waterbased, ready to use spray that can be used to remove moss, algae and lichen. The material can be used on a number of building substrates including concrete, ceramic tiles, brickwork, and stone. It can also be used on typical textiles used for sunshades and awnings.

The **Sikagard®-715W** must be well shaken before use, and is easily applied over the concerned area. Reaction time is very short (approximately 5 to 10 minutes), and the material is then rinsed off using water.

Sikagard®-715W is biodegradable and contains no organic solvents!!

The Sikagard 715W Effect

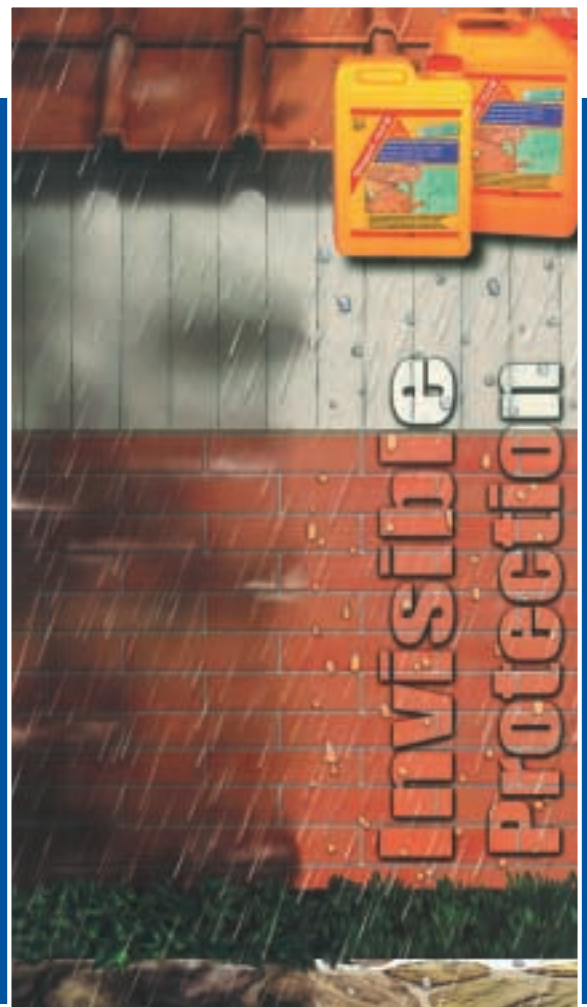
Sikagard®-703W

This water based, 1 part, invisible silane/siloxane based impregnation, can be used to increase the durability and aesthetics of various parts to your home and building. The material can be applied on a number of building substrates such as concrete, ceramic tiles, brickwork, and stone.

The **Sikagard®-703W** must be applied on a dry, clean surface that is free of dirt, oil, algae, moss and other contaminants. It is easily applied using a brush, roller or spray gun. It can also be covered by a number of different types of paint.

Sikagard®-703W improves the resistance of substrates to a number of contaminants, and importantly, acts as a barrier to water and pollutant ingress.

The Sikagard® Effect



► P.R. Polymers

The old concrete surface in the lab and the warehouse of P.R.Polymers factory in Brisbane was badly chipped and damaged. The floor required a new epoxy coating system to be applied, however, it needed to be levelled initially to ensure a smooth surface to work on.

Pratt Applicators were contracted to do the work, and **Sikafloor®-Level 25** was chosen as the cementitious underlay. This was applied at 5mm thickness across the floor. Once the floor had set and cured, the epoxy roll coat system, **Sikafloor®-261T** was then applied to improve the mechanical and abrasion resistance of the surface.



After Sikafloor®-Level 25 has been placed

► Darling Island Development



Applying Sikafloor®-400N Elastic

The first phase of the Darling Island development project in Sydney, has begun with Multiplex. The three story luxury residential building, as part of this initial stage, required high quality waterproof membranes for the balconies and the external areas.

Eptec were contracted to apply the membranes in these areas using the new elastic, UV resistant,

polyurethane **Sikafloor®-400N Elastic**. Any corners, edges or penetrations were first treated with **Sikadur®-31**, and then the area was waterproofed using **Sikafloor®-400N Elastic**. The contractor was then asked to conduct water tight tests 48 hours following the last coat, and these have all proved to be successful.



A finished balcony

► Waste Management Centre



One of the new tanks

The Eastern Creek Waste Management Centre installed several new storage tanks that were made of glass-metal trifusion. **Sika** was contacted to propose a sealing system for the joints and floors.

Two confined space licensed contractors, EPTEC and Metropolitan Restorations, then applied the approved specification.

The specification included a unique joint design which involved applying **Sikaflex®-PRO** in two stages. Stage one involved the **Sikaflex®-PRO** in a 20x10mm joint. Stage two involved putting a de-bonding tape on the

applied **Sikaflex®-PRO** and creating a 20mm chamfer on top of it and bonded to the metal-glass surface. The waste management centre then decided to put **Sikadur®-Combiflex** down to cover the wall to floor joint around the internal perimeter of the 15 metre diameter tank .



Sikaflex-PRO® in the joint

The tank floor was then repaired using the epoxy mortar **Sikadur®-31** and **Sikadur®-52** resin injection system. The tank floor was finally waterproofed with a composite system based on the bituminous acrylic **Sika Tite-BE®** and the cementitious based **Sika Tite-RC®**.

► Sika Strengthening Systems



The strengthened Narrows Bridge in Perth

Carbon fibre reinforced polymers have found a place in the repair and protection of concrete, masonry, timber and steel structures throughout the world. In Australia, **Sika** has been an innovator, introducing this technology to the market in nearly 10 years ago. In this time, hundreds of projects have been completed, strengthening many different types of structures including: commercial buildings (hotels, commercial office blocks, hospitals, shopping centres, car parks etc), residential buildings (balconies, suspended slabs, wall bracing), industrial structures (silos, manufacturing plants, mining structures etc), and transport infrastructure (bridges, wharves, road viaducts etc). This includes strengthening the Narrows Bridge in Perth, where the longest single piece of **Sika CarboDur®** laminate was placed overhead (55 metres) without propping. The **Sika** strengthening systems have become synonymous with specifiers throughout the country in this industry.

The systems include:

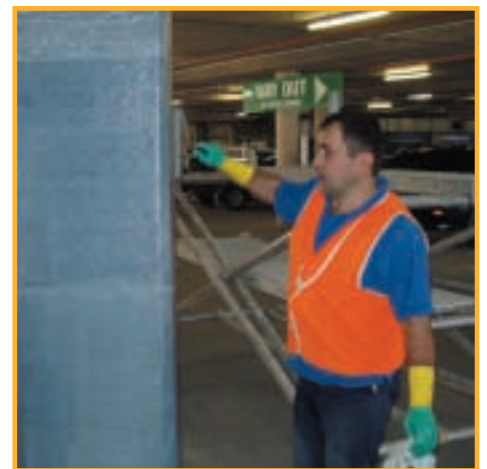
Sika CarboDur®: the carbon fibre laminates that are used for flexural strengthening

Sika Wrap®: the carbon, glass and aramid fibres fabrics used for shear, flexure, and confinement strengthening

Sika CarboShear L®: the L shaped carbon fibre laminates used for shear strengthening.

The **Sika** products are also supported by the Engineering Guidelines CD that has a detailed programme for the design of flexure, shear and confinement strengthening. A national network of specialised contractors enhances this support, and this experience is essential for such sensitive design.

If you wish to learn more about the **Sika® Strengthening Systems**, please contact your local **Sika** office to organise more information or a group presentation. Alternatively contact the company's Product Engineer, David Millar at dmillar@sika.com.au



Sika Wrap® - 2004



Sika CarboDur® - 1996



Sika CarboDur®, Sika Wrap®, Sika CarboShear®

► Sika Streakers City to Surf

As always Sika had a large contingent of eager walkers and runners take part in the Sydney City to Surf.

The City to Surf is a 14km fun run between Sydney and Bondi, and is run each year in August. This year Sika had a record 44 employees take part on a beautiful winter Sunday morning, and it turned into a great fun day for everyone.



Can you spot the Sika Streaker?

► Australian Timber Floor Expo



The Sika Timber Bonding Display

Sika Australia was again in attendance at the Australian Timber Flooring Expo which was held at Rosehill Race Course on 9-10th September 2004.

Sika Australia took this opportunity to meet with valued customers as well as meeting new customers, to discuss the Timber Flooring Industry.

The Sika Acoubond® System was the main

highlight of the show, and attracted wide interest from the show's visitors.

Furthermore, Sika was showcasing the other SikaBond® Timber Flooring Adhesive Systems, as well as their Sikafloor® Systems at the show.

► Let's Bowl

Following the recent Sika Australia Marketing Meeting, attended by all Branch Managers and Product Managers from around the country, participants let their hair down with a friendly game of - lawn bowls!

After a 'gruelling' afternoon of drinks, lunch, and lawn bowls, all led by Bruce, Rock and Bowls 'Minister for Fun', the eventual winners, the Orange Team, prevailed in a tight finish to take out the prize.

A great afternoon of fun was had by all in an extremely pleasant environment!



Top: The 'Minister for Fun' gives Managing Director, Peter Scott, a few tips.
Right: The winning team - Hugh McCook (Sika WA), Peter Withell (Sika NZ), David Millar (Sika Product Engineer)



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Pty. Limited**

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For further information
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