



CONCRETE SIKA SOLUTIONS FOR ARCHITECTURAL CONCRETE

BUILDING TRUST



EXPERTISE AND EXPERIENCE IN ARCHITECTURAL CONCRETE



SIKA IS A GLOBAL COMPANY

with an enviable reputation for innovation, quality and experience. The ability to appreciate concrete as an aesthetically versatile construction material has led to many Sika innovations in architectural concrete.

The flexibility of concrete in design enables the designer to create structures not possible with other construction materials. Combining this flexibility with Sika innovation allows structures of true architectural value to be realized.

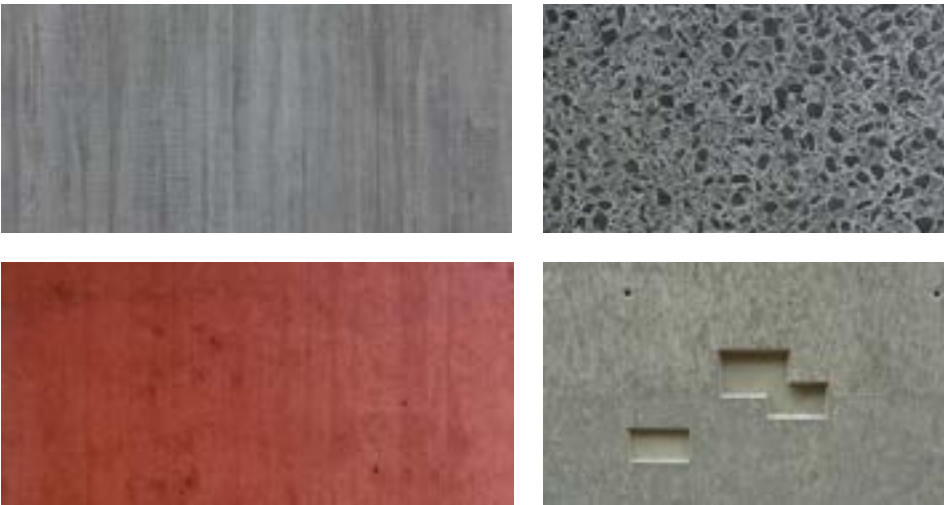
THE ADVANTAGES OF SIKA ARCHITECTURAL CONCRETE:

- Durable and low maintenance
- Cost effective in comparison with other systems
- Resists mechanical damage
- Eliminates the need for the application of coatings or paints
- Versatile in design

STRUCTURES AND APPLICATIONS WITH SIKA COMPETENCE

SIKA ARCHITECTURAL CONCRETE CAN BE USED FOR ALL TYPES OF STRUCTURES AND APPLICATIONS.

| Structures | Applications |
|------------------------------|---|
| Commercial structures | Parking garages, internal and external architectural elements, facades |
| Residential buildings | Driveways, footpaths, internal and external architectural elements, facades, balconies |
| Education buildings | Car parks, footpaths, internal and external architectural elements, facades, street furniture |
| Transport and infrastructure | Roads, bridges, tunnels, airports |



Sika has over one hundred years experience and expertise in concrete formulation and optimization. This knowledge combined with an extensive range of architectural concrete solutions enables owners, designers and and contractors to construct contemporary structures that are durable and reduce the total cost of ownership (TCO).

The use of architectural concrete has grown rapidly in recent years and Sika's high quality proven technologies are at the forefront of this expansion.

PROJECT REFERENCES

Project: Darra to Springfield Transport Corridor, Brisbane
Architect: Horizon Alliance, Brisbane

Sika® ColorFlo® concrete pigments were used for all concrete that required an aesthetic finish on the Darra to Springfield Transport Corridor, an impressive new piece of integrated road and rail infrastructure. Sika® Architectural Concrete was the natural choice for all the pavements, retaining walls and noise reducing walls.



PRINCIPLES IN PRACTICE

Understanding the designers vision is vital. To enable the successful realization of the design to the completed structure, Sika needs to be involved at the earliest opportunity. This collaborative approach ensures good communication and understanding at all times throughout the project.

The formulation of the concrete mix design is key to achieving architectural concrete of the required quality. Locally available materials (aggregates and cement) need to be evaluated to ensure that the selected Sika solutions are optimized providing superior finishes and durability.



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|---|--|---|---|---|--|--|--|--|--|--|
| 1  CONCRETE Mix design optimization | 2  Sika® ColorFlo® Concrete coloring | 3  Sika® ViscoCrete® Water reduction and improved durability | 4  Sika® ViscoFlow® Extended concrete workability | 5  Sika® Stabilizer Increased concrete cohesion and improved surface finishes | 6  Sika® Perfin Improved concrete surface finishes | 7  Sika® Control Shrinkage and crack reduction | 8  Sika® Rugasol® Exposed aggregate finishes | 9  Sika® Separol® Formwork release | 10  Sika® Antisol® Efficient concrete curing | 11  Sikagard® Protection and sealing |
|---|--|---|---|---|--|--|--|--|--|--|

THE PRINCIPLES OF ACHIEVING ARCHITECTURAL CONCRETE

Concrete Technology

Sika® ColorFlo® concrete pigments are based on natural and synthetic iron oxides available in both powder and liquid form and are central to the Sika® Architectural Concrete Concept. Numerous colors are available (see Color Chart). Other products in the Sika® Architectural range complement Sika® ColorFlo® and produce a high quality concrete suitable for all possible applications and contractor's requirements that will satisfy the most demanding designer's and owner's.

ON-SITE SUPPORT

Sika representatives support the owner, designer and contractor on their projects from the initial design through to completion.

Samples of proposed concrete formulations can also be provided so that the Designer and Owner can make informed decisions. Sika technical staff are available on-site during construction, so that the project is truly supported from conception to completion.



SURFACE FINISHING

There are many different types of surface finish that can be achieved when using Sika® Architectural Concrete. Attention should always be given to type of surface finish as this will always significantly affect the visual appreciation of the structure.

- Formed concrete
- Form lined concrete
- Exposed aggregate finishes
- Troweled finishes
- Brushed finishes
- Blast cleaned or mechanically tooled
- Patented imprinted concrete
- Polished concrete



PROJECT REFERENCE

Project: Manchester Metropolitan University, Manchester
Architect: Feilden Clegg Bradley Studios

Sika® Perfin® was used in combination with Sika® ViscoCrete® to achieve the high quality surface finish specified by architect Feilden Clegg Bradley Studios. The use of Sika® Architectural Concrete was essential to provide all the required surface finishes, some of which had to be highly polished.

SIKA ARCHITECTURAL CONCRETE SYSTEM COMPONENTS



CONCRETE

Concrete mix design and optimization suitable for the intended application is essential for the success of Sika® Architectural Concrete.



Sika® ColorFlo®

Sika® ColorFlo® concrete pigments is a range of synthetic iron oxide powder and liquid pigments available in numerous different colors. Sika® ColorFlo® pigment is permanent, stable and UV resistant. Solar Reflective Index (SRI) values are available.



Sika® ViscoCrete®

- Sika® ViscoCrete® is a range of HRWR/Superplasticisers that enhance the workability and durability of concrete.
- Sika® ViscoFlow® is specifically developed to extend and retain the workability of concrete for long periods of time.



Sika® Stabilizer®

Sika® Stabilizer® is used to increase the stability of concrete; it improves cohesion and surface finishes.



Sika® Perfin

Sika® Perfin is used to improve the surface finish of concrete by reducing the occurrence of pores and blowholes on the concrete surface.



Sika® Control

Sika® Control reduces drying shrinkage cracking in structures that can cause a visual defect in the concrete.



Sika® Rugasol®

Sika® Rugasol® surface retarder can be used to provide an exposed aggregate finish to concrete.



Sika® Separol®

Sika® Separol® is a range of formwork release agents. The range of products enables the fulfilment of many different types of application and formwork types.



Sika® Antisol®

Sika® Antisol® is a spray-applied membrane for the curing, hardening and sealing of concrete. The selected Sika® Antisol® products for architectural concrete are all highly UV resistant.

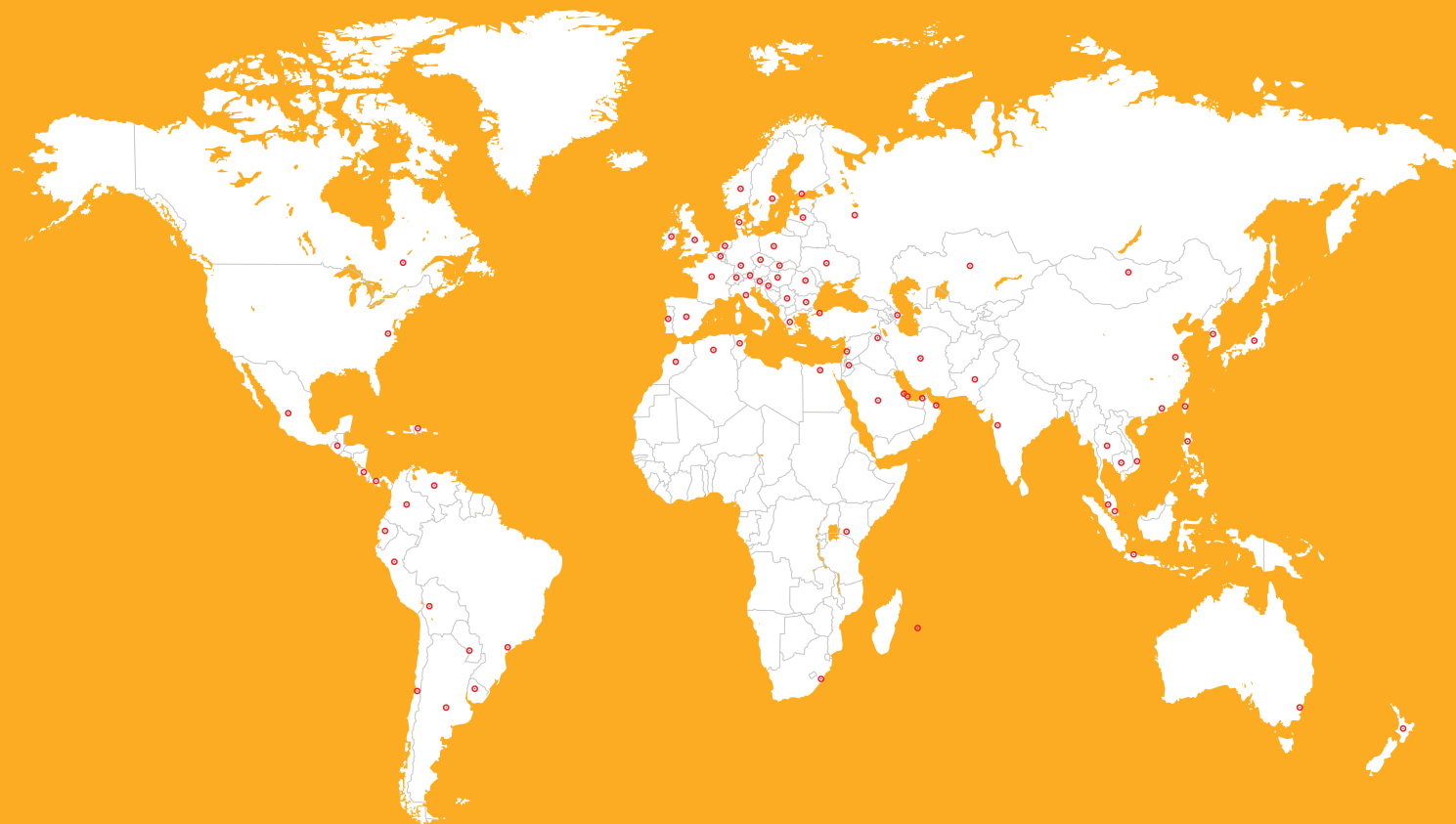


Sikagard®

Sikagard® surface treatments can be applied to enhance the durability or visual appearance of concrete.



GLOBAL BUT LOCAL PARTNERSHIP



FOR MORE INFORMATION:



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 most current local Product Data Sheet prior to any use.



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