Courtesy of Florim® Florim Ceramiche S.p.A.

SikaTack® Panel SYSTEM
THE ELEGANCE IN WALL CLADDING

BUILDING TRUST

SMOOTH AND ELEGANT

Good architecture is the key element for an aesthetically beautiful building that also includes modern living comfort, demand on energy saving and finally a sustainable investment. The facade should be the defining element of a well designed building. When it comes to ventilated facades, Sika has an adhesive system which can exactly meet the requirements described above. With the SikaTack® Panel System unsightly screws or rivets for fixing the panels are no longer necessary. For this, the panel can fully develop its original beauty.

As a globally operating company, we are partner to our customers worldwide. Sika is represented with its own subsidiaries in 90 countries, thus ensuring first-class order handling and delivery, as well as application, technical and commercial support.

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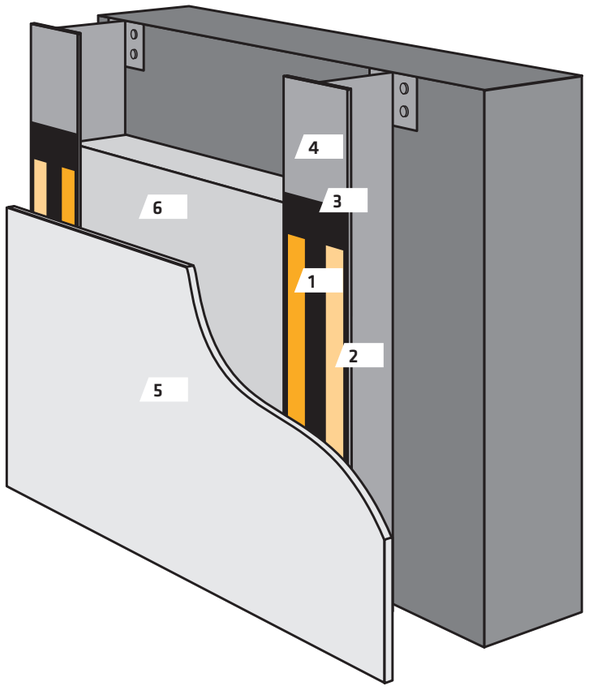
Picture front page:
Project name: Florim Magnum
Place : Quebec City - CA
Product : SikaTack® Panel
Courtesy of Florim© Florim Ceramiche S.p.A.

THE SYSTEM PRINCIPLE

SikaTack® Panel

Sika provides the adhesive system for ventilated rainscreen cladding.



1 SikaTack® Panel Adhesive – One-part moisture curing and structural adhesive
2 SikaTack® Panel Tape – Closed-cell PE foam core with pressure-sensitive adhesive for panel prefixation
3 SikaTack® Primer – pigmented, solvent-based adhesion promoter
4 Aluminium Rail System
5 Facade Panel
6 Insulation Material (e.g. mineral wool)

SikaTack® Panel

FOR INTERIOR AND EXTERIOR WALL CLADDING

With the SikaTack® Panel Adhesive System, cladding finishes can be fixed to a carrier frame which allows the designer the freedom to design without any unsightly fixings. The permanent elastic nature of SikaTack® Panel Adhesive System combined with a tenacious adhesion to a variety of panel substrate types accommodates the natural differential movements of varying building materials for the life of most panel types. This ingenious and simple system offers both the designer and installer alike many advantages over comparable mechanical secret fixing systems. SikaTack® Panel Adhesive System is suitable for the fixing of composites, ceramic, high pressure laminate, as well as many metal and powder coated substrates.

FOR VENTILATED RAINSCREEN CLADDING

Rain can be forced through the joints and openings of a typical building facade through the action of wind or via external and internal pressure differences.
Ventilated rainscreen cladding overcomes these potential problems by utilizing the phenomena of pressure equalization. The principle of pressure equalization offered by a rainscreen cladding system ensures the weather tightness of the building structure by eliminating the methods of which rain may enter the facade. Rainscreen cladding is a tried and tested concept backed up with many years' experience in the development of relatively easily installed lightweight systems that are currently available.

THE SYSTEM BENEFITS

FOR BOTH NEW BUILD AND REFURBISHMENT, THERE ARE MANY BENEFITS RELATED TO THE SikaTack® Panel SYSTEM.

- Aesthetically pleasing – no screws or rivets are visible
- Elastic bonding – uniform tension over the whole panel and therefore no deflection of panels
- Extremely cost effective due to fast and economical installation
- Adhesive layer prevents galvanic corrosion
- Increased thermal performance on exterior wall
- Approval by German Building Authority DIBT and British BBA
- Over 20 years experience and global references
- One mounting system for most type of panel

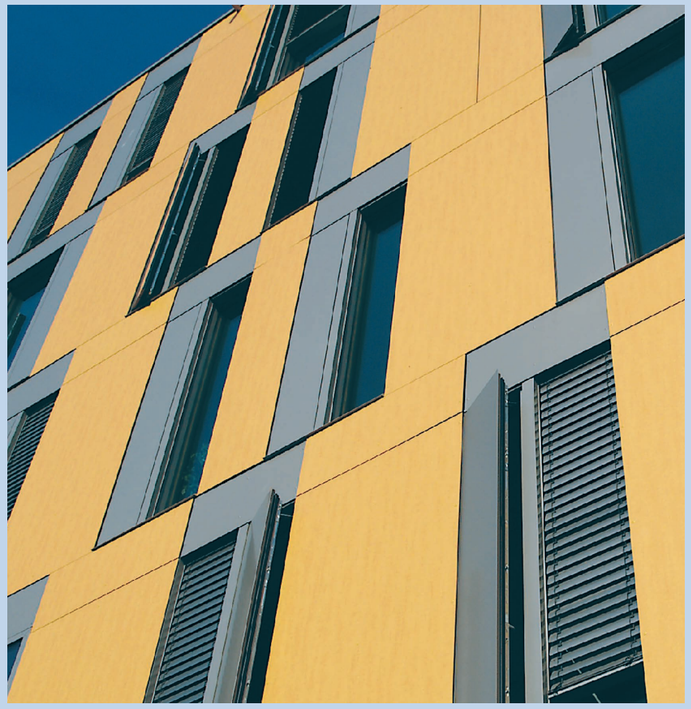
SikaTack Panel System has up to 40% less cost in comparison to hidden mechanical fixation.

EXPERIENCE SINCE 1990's

Sika were first who recognized the many benefits of elastic bonding compared to mechanical fixation for facades panels. Back in 1990, the first facades were made with elastic bonded panels. The advantages of the elastic bonding were obvious and therefore the system found rapidly its customers, first throughout Europe and now all over the world. The SikaTack® Panel System, which was developed back then has lost none of its simplicity and safety in use, to present day.

The SikaTack® Panel System has been fully tested and endorsed by DIBt and the BBA.

The long, successful history and the many references are what makes the SikaTack® Panel System unique.

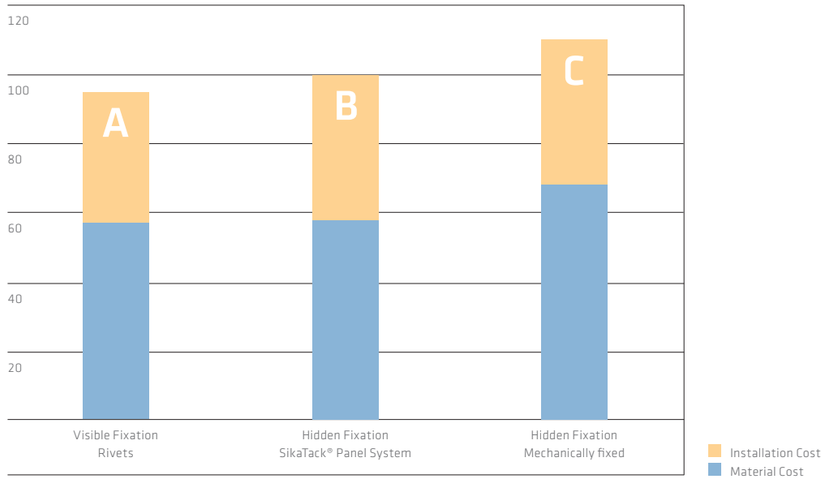


THE VALUE OF BEAUTY

A smooth and good looking building skin with rainscreen cladding without screws, rivets or other visible mechanical fixing has some additional cost. A cost comparison between different panels systems, between visual fixation and hidden fixation shows the total project cost is 15 – 25 % more when mechanically hidden fixed. The total cost with the SikaTack® Panel System will be only 0 – 5% more than the visible mechanical fixed system.

BUT HOW MUCH VALUE CAN BEAUTY HAVE?
Considering the total cost of the facade project, the building cost and the life cycle of at least 30 years, cost for hidden fixation are almost nothing compared to the value of technical superiority and the beauty the building has created by the SikaTack® Panel System.

DIAGRAM COST COMPARISON



Column A: Visible fixation with rivets for an aluminium composite panel construction: total project cost separated into material – and installation cost .

Column B: Hidden fixation with SikaTack® Panel System: the total cost are 0 – 5% higher compared to the visible fixation.

Column C: Hidden fixation with mechanical fixing system: the total cost are 15 – 25% higher compared to the hidden fixation with SikaTack® Panel System.

THE SYSTEM PRODUCTS

THE SikaTack® Panel SYSTEM comprises of SikaTack® Panel Adhesive and SikaTack® Panel Fixing Tape besides appropriate surface pretreatment agents.

The double sided adhesive tape is used for the temporary support of cladding panels for cladding panels while the SikaTack® Panel Adhesive cures. SikaTack® Panel Adhesive is moisture-curing single component polyurethane resin based adhesive, capable of withstanding extreme dynamic and static loads and climatic conditions. Once cured, the adhesive remains permanently elastic to accommodate differing thermal expansion of various building substrates. It eliminates stress fatigue at corners of panels and prevents cold bridging.

For calculations of the glue line, depending on the weight and sizes of panels, maximal wind load and temperature difference, please contact your Sika FFI Competence Center.

SikaTack® Panel SYSTEM ADHESIVES

	SikaTack® Panel Adhesive	SikaTack® Panel-10	SikaTack® Panel-50
Base	One-part polyurethane moisture curing structural adhesive	One-part polyurethane moisture curing structural adhesive	One-part silicone moisture curing structural adhesive
Typically used	Exterior wall cladding for opaque panels.	Interior and exterior wall cladding for opaque panels	Exterior wall cladding for opaque panels especially porous cement based panel and for printed and enemaled coated glass.
	Certified and approved by German Building Authority DIBT and British BBA		EN Approval, Fire Approval
Colour	Ivory	Ivory	Grey S6
Packaging	300 ml cartridge	600 ml unipack	600 ml unipack
	600 ml unipack		
Skin time	20 min.	45 min.	15 min.
Shelf Life	9 months	12 months	9 months
Service Temperature	-40 – 90°C (-40 – 195°F)	-40 – 90°C (-40 – 195°F)	-40 – 150°C (-40 – 300°F)

SikaTack® Panel SYSTEM ACCESSORIES

The product	Use	Color	Packaging	Shelf Life
SikaTack® Panel Fixing Tape	Closed-cell PE foam core with pressure-sensitive adhesive for panel prefixation	Anthracite	Rolls 33 m Thickness 3 mm, Width 12 mm	24 months
SikaTack® Panel Primer	Pigmented, black primer	Black	1 liter can	9 months
Sika® Aktivator-205	Adhesion promoter	Clear	250 ml, 1 liter can	12 months
Sika® Remover-208	Remover for uncured adhesive	Clear	250 ml, 1 liter, 5 liters can	24 months

THE BLACK PRIMER STORY

SIKA STANDS FOR a long lasting and trustful connection between the panels, the adhesive and the substructure. And with that a good and lasting bond starts with clean and well prepared substrates.

Elastic adhesives have a relatively high viscosity which reduces the 'wettability' when bonding to a surface. Pretreatments and primers are able to generate a link between the substrate and the adhesive which assures a long lasting bond.

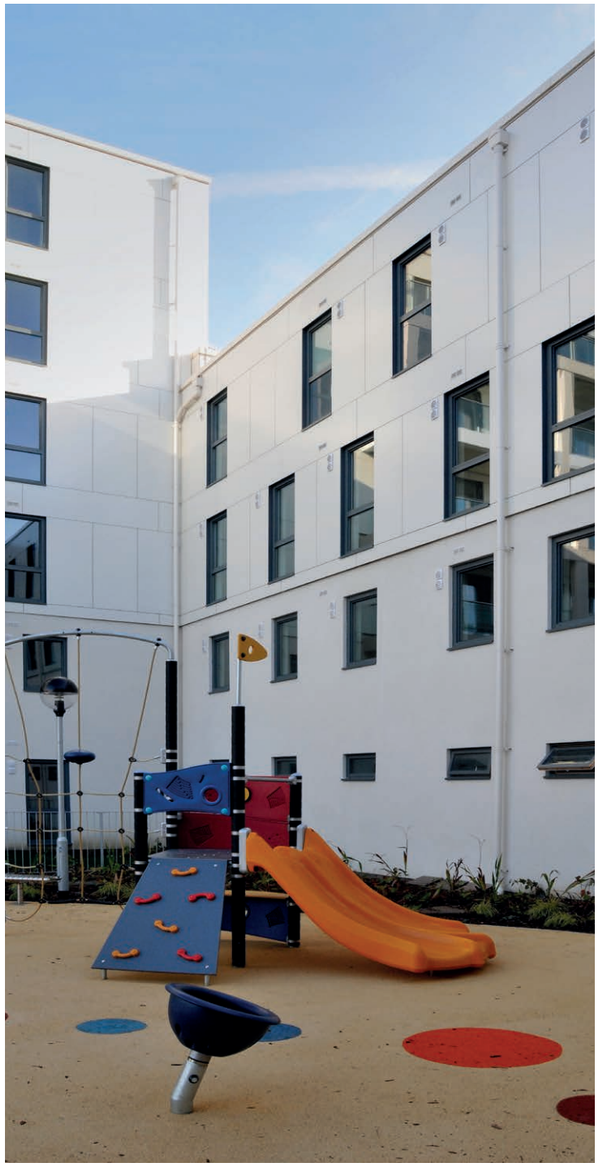
SIKA RECOMMENDED PRETREATMENT
Sika® Aktivator-205 is a liquid which contains solvents and adhesion promoters. The application is simply done via wipe on step. After application it does not build up a film and can only be recognized in a slight difference in shine.

SikaTack® Panel Primer is an all in one black primer that contains solvents, adhesion promoters and reactive binder. The primer forms a film after evaporation of the solvents and reacts with air humidity. At the same time it may fill up pores (surface homogenization) and strengthen the surface. Goal of the primer application is to get a thin, homogenous film layer. This can be achieved by foam.

Sika's track record of some million square meter of bonded panel over the last 25 years, prove the capability of our products and of our recommendations.

USING SIKA PRETREATMENT SYSTEMS AND THE Panel Primer MEANS:
- Process security, constant quality on bond face
- Long term durable bond
- Visual track where the black primer has been applied already
- Shadow effect in the gap between the panels

The story around the Sika black primer is short and simple: peace of mind.



APPLICATION STEPS

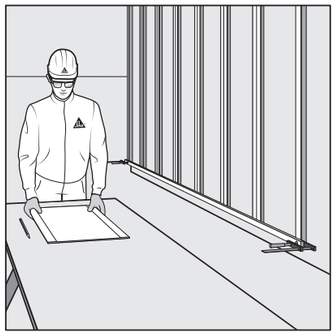
1

A well prepared working place is important for working with adhesives.
Mark precisely where the first panel must be bonded on the substructure, or use a reference fixed on the substructure.

Make notes for your record with all relevant informations.

Ambient Temperature 5 – 35°C (40 – 95°F).

2



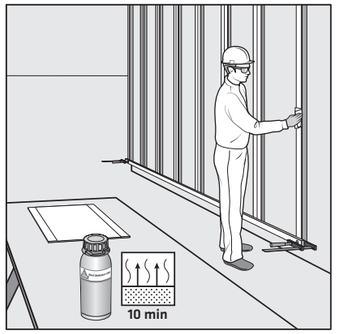
The surface to be bonded must be clean, dry and free from grease. Abrading with an abrasive pad (grain 80) on the panel and the substructure when recommended for the specific system.

Ask Sika representative or the panel supplier for specific advice on pre-treatment steps.

3

Remove dust with a lint-free paper towel or cleaning paper.

4



Aktivate the bond faces with Sika® Aktivator-205. Use a clean lint-free paper towel or cleaning paper and wipe in one direction only (dirty cloths must be replaced).

Allow a flash off time of 10 minutes.

5

Shake SikaTack® Panel Primer thoroughly (the movement of the steel balls in the container must be clearly audible). Apply one thin coat of SikaTack® Panel Primer uniformly over the whole surface with a felt pad.

Allow a flash off time of at least 30 minutes.

6

Apply SikaTack® Panel Fixing Tape over the whole length of the vertical sections and parallel to the edges.

Do not pull off the protective foil at this time.

7

Apply SikaTack® Panel Adhesive in a triangular bead by using the triangular nozzle supplied (width 8 mm, height 10 mm) with at least 5 mm gap to the fixing tape and to the side of the batten.

8

Remove the protective foil on the SikaTack® Panel Fixing Tape.

9

Place the cladding panel in the required position first, without the panel touching the fixing tape. After press it firmly until it touches the SikaTack® Panel fixing tape.

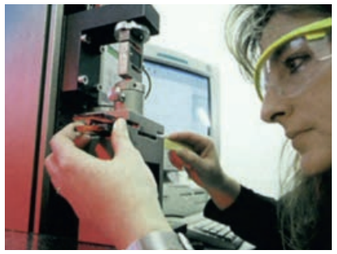
FOR FULL APPLICATION INSTRUCTIONS PLEASE REFER TO THE LATEST PRODUCT DATA SHEET AND THE GENERAL GUIDLINE FOR SikaTack® Panel SYSTEM.

Application video SikaTack® Panel

OUR PERFORMANCE – YOUR BENEFITS

Performance	Benefits
Construction consultancy	■ Review and consultancy of facade and window systems with regard to suitability for bonding ■ Advice on system improvements i.e. material choice or dimensioning
Functional testing	■ Support with prototyping ■ Functional tests / test plan of entire system for compatibility, adhesion and function
Application technology	■ Active consulting, including the selection of right application technology ■ Assist in system and equipment engineering / bonding technology ■ Support with application and quality procedures
Applicator training	■ Preparation of operating manuals for bonding in conformity with international and local standards ■ Factory and on-site training of applicators
External approvals	■ Best practice sample preparation

OUR CORE COMPETENCE – FROM DESIGN TO PROCESS
Sika develops bonding and sealing solutions in close cooperation with its customers in the facade and window industry. To Sika, this means not only developing best-in-class technology solutions to match the customer's technical and commercial requirements, but also ensuring appropriate performance throughout the design, prototyping, validation and full production phases. Experts in Sika's R&D, Technical Service and System Engineering specialize in devising unique client-oriented solutions.



DESIGN AND SYSTEM ENGINEERING
Application oriented adhesives and sealants, as well as innovative construction methods are currently in high demand, which calls for design and application support. At Sika FFI Competence Centres, the most suitable solutions are developed in partnership with our customers to achieve the targeted results. Ultimately, this means reduced production costs, greater product reliability, improved aesthetic appeal and faster turn-around times, adding value to the activities of Sika customers.

TECHNICAL SERVICE
Sika Technical Service teams are located around the world, and are dedicated to providing best practice selection, validation and application of Sika materials. By being located close to our customers, Sika Technical Service provides fast and reliable project tests based on international or local standards and can assure optimum local language communication and understanding throughout the technical application development process to ensure the best possible results.

REFERENCES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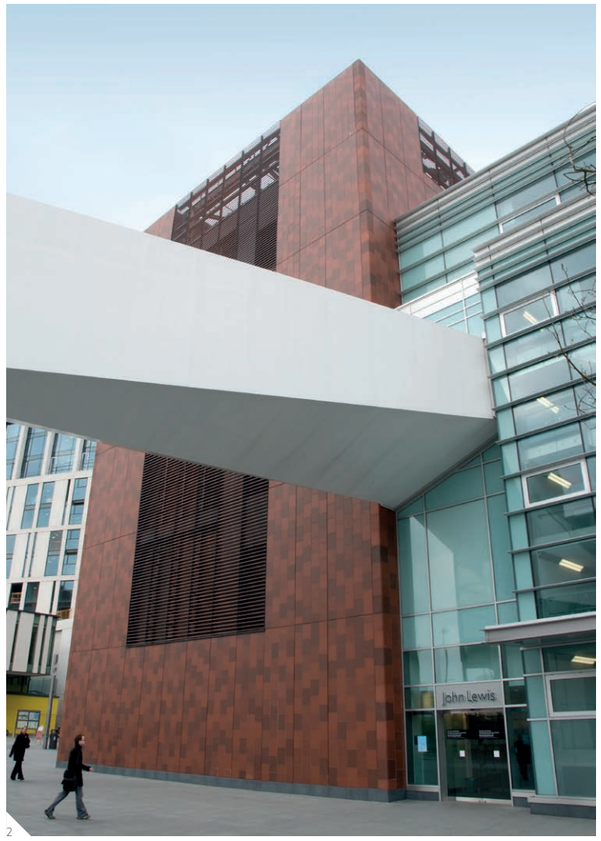

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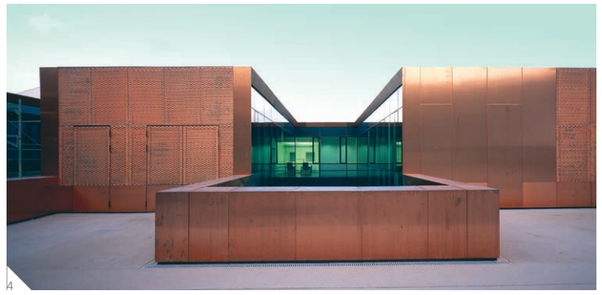
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1 South Huyton Community Learning Centre, Knowsley, United Kingdom
2 John Lewis Store, Liverpool, United Kingdom
3 Lambeth Water Tower, Kennington London, United Kingdom
4 WIS Service Center, Theresienwiese, Munich, Germany
5 Sony Ericsson Head Office, Anstey Park, Coventry, United Kingdom
6 BMW/Mini Dealership, Beddington, United Kingdom
7 IMF Lannach Company Headquarters, Austria

GLOBAL BUT LOCAL PARTNERSHIP

For more literature about Sika Facade and Fenestration solutions browse:
www.sika.com/facade

www.sika.com/facade

WE ARE SIKA
Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, flooring as well as roofing and waterproofing systems.

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