

SEALING & BONDING SIKA CONSTRUCTION ADHESIVES

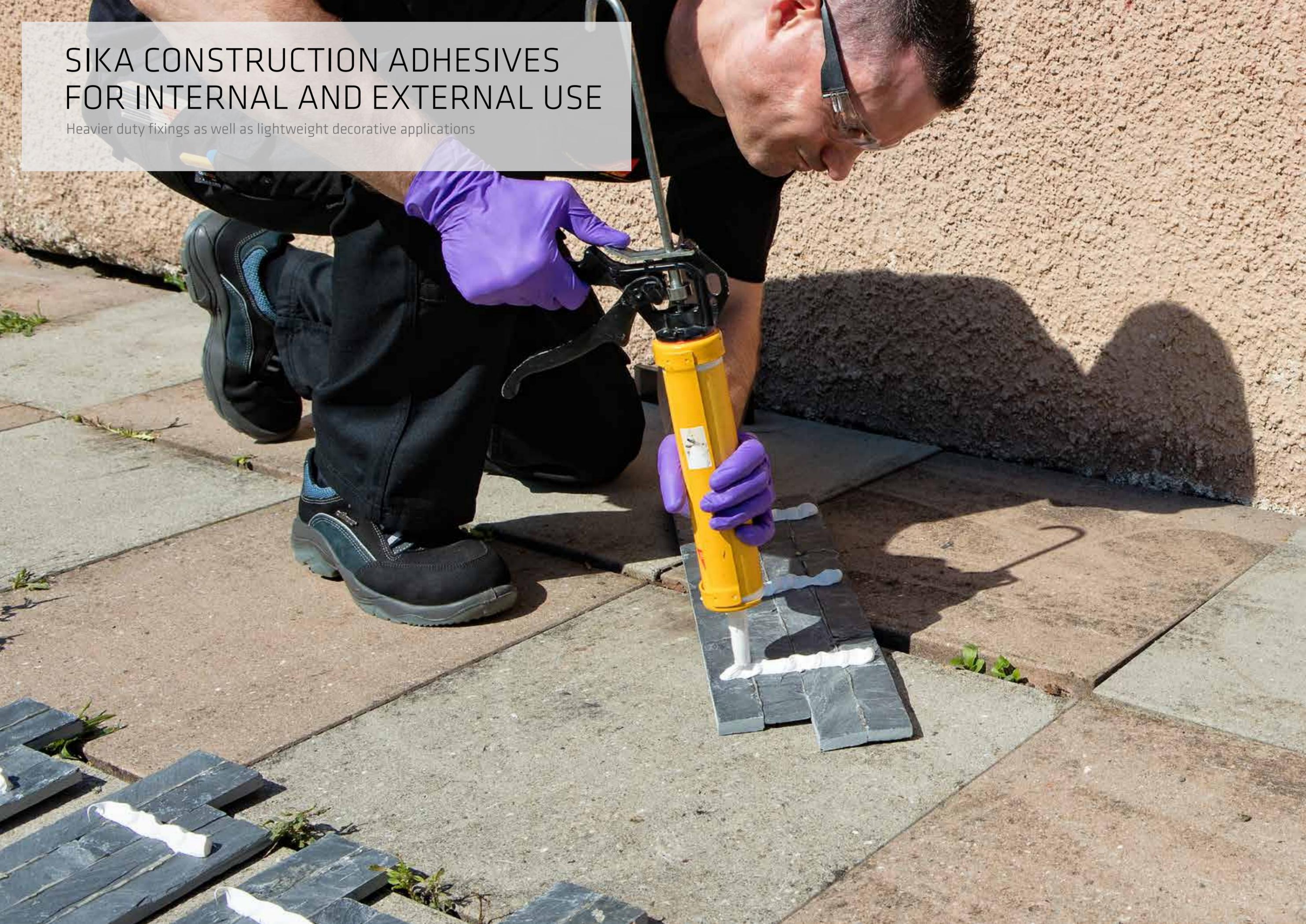
BOND WITH THE STRENGTH OF COUNTLESS CHEMICAL "SCREWS"

BUILDING TRUST



SIKA CONSTRUCTION ADHESIVES FOR INTERNAL AND EXTERNAL USE

Heavier duty fixings as well as lightweight decorative applications





SUPERIOR BOND TECHNOLOGY

GAINING MORE AND MORE IMPORTANCE IN CONSTRUCTION

The use of construction adhesives for structural and non-structural bonding on construction sites is gaining more importance due to new materials, new methods of building and increasing time pressure. Examples range from the simple bonding of wooden laths, plaster or insulation boards, to the bonding of facade elements and structural reinforcement.

A big advantage of bonding over traditional mechanical fixings with screws or nails is the larger fixing area and consequently a far more homogeneous and uniform distribution of any stress. The only disadvantage is the lack of penetration depth when compared to screw fixing, and consequently the need of sufficient surface strength of the elements to be joined as well as good adhesion of the adhesive for a durable bond.

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SIKA'S WORLD OF CONSTRUCTION ADHESIVES

SIKA HAS BEEN A GLOBAL TECHNOLOGY AND MARKET LEADER IN BONDING FOR DECADES.

A brief overview of our activities outlines our strengths and the versatility of bonding today. Structural bonding in industrial production including:

- Application fields are very widespread in:
 - Transportation e.g. cars to trains
 - Appliances e.g. machine building to consumer electronics
 - Civil engineering e.g. windmill blades to storage tanks
 - Construction e.g. glass facade elements to panels
- Structural bonding applied on site including:
 - Structural reinforcement e.g. strengthening of concrete beams and pillars or rebar bonding
 - Facade panel bonding

■ Non-structural bonding applied on the construction site including:

- Building e.g. bonding gypsum boards to timber battens
- Waterproofing e.g. bonding membranes to concrete
- Insulation e.g. bonding EPS boards in position
- Installations e.g. floor finishes, tiling and also electrical fittings such as lamps, sensors and switches
- Decorative fixture, fittings and finishes e.g. fabrics, dado lines internally and design features for external landscaping etc.

Structural applications generally require engineered bonding solutions, starting with the necessary design calculations, testing and precise application procedures. On the other hand non-structural bonding is a more generic application, where besides some general guidance on the correct procedures, no further special or restrictive measures are needed.

As a leading supplier of adhesives our portfolio covers most adhesives technologies from simple dispersions for inte-

rior decorating, to high performance epoxies for structural strengthening and silicones for structural glazing. Using a Sika adhesive is being part of this competence and leadership.

In this brochure the focus will be on non-structural adhesives for general building and assembly applications. These products are found in every workshop and trades van, worldwide. There is always something to fix, mount and attach.

SIKA PROVIDES A HUGE ADHESIVE RANGE - FROM STRUCTURAL BONDING APPLICATIONS WITH REINFORCEMENT & STRENGTHENING TO NON-STRUCTURAL EVERYDAY SOLUTIONS FOR BONDING INSULATION OR DECORATIVE FINISHES & FITTINGS.

STRUCTURAL STRENGTHENING WITH Sika CarboDur®



BIOGAS PLANT



AUTOMOTIVE BONDING SOLUTIONS



BONDING SOLUTIONS FOR MARINE



BONDING PANELS OF WIND TURBINES



BONDING KITCHEN UNITS AND DOMESTIC APPLIANCES



BONDING SOLUTIONS FOR TRAINS



BONDING SOLUTIONS FOR TRUCKS



INSTALLATIONS WITH ADHESIVES

THE MODERN WAY OF installation for many things is with elastic adhesives. Compared with traditional methods there are numerous advantages in both the application and life-cycle of bonded materials.

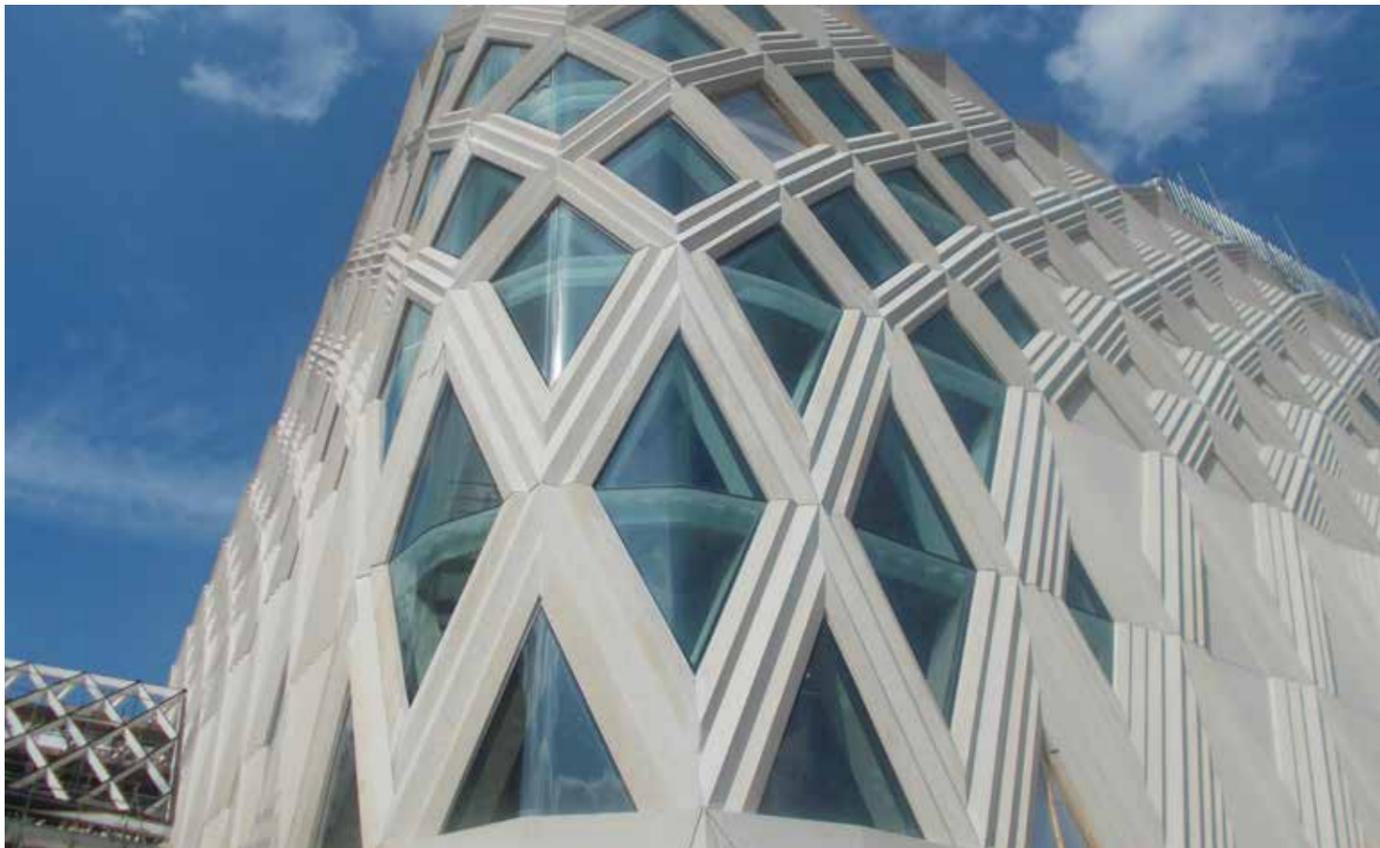
EASY AND SECURE BONDING WITH GRAB ADHESIVES

FASTER INSTALLATION:

- No precise measuring is needed like installing with screws. The objects are placed in position and can be readjusted for a certain time after their initial fixing/mounting
- No initial fixating is needed, even for heavy objects. Sika grab adhesives will keep your bonded objects in place until the final bond strength is reached. However do not load the bonded objects until this final strength is reached, usually after around 24 hours
- Less tools are needed for the installation, no drills, hammers, screws and screwdrivers. All you need is the adhesive (cartridge) and an application gun
- Installation with adhesives is clean, no dust and no swarf is created.

SAFER INSTALLATION:

- How often have you experienced damage of the wall when drilling, or damage to the object when nailing them in position? Avoid this nuisance by bonding
- Conventional fixing to an uneven or rough surface is difficult
- Grab adhesives compensate for this and therefore help to ensure a firm fixing
- Elastic adhesives are reactive products that polymerize after application. Sika adhesives meet the highest environmental health standards (EHS) to ensure good indoor air quality



LONG-LASTING CONNECTION WITH ELASTIC ADHESIVES

- In modern construction many new materials are being used. Joining materials with very different properties like glass and steel, or stone and plastics will lead to distortion of the objects or failure of traditional fixings due to the different thermal expansion coefficients. Elastic adhesives are the ideal solution and provide the best interface between the materials as they can also compensate for this stress.
- Corrosion can occur between traditionally joined materials, especially between different metals or of unprotected screws and nails. By using grab adhesives a film is formed between the objects and this is avoided, plus the different substrates are protected as elastic also sealprotecting and sealing the surfaces.
- Between traditionally joined objects moisture can accumulate from the weather that can lead to damage and deterioration. Elastic adhesives are also sealants, so when bonding, you also waterproof the surfaces and the area between them.
- Noise originating from vibrations between objects joined by traditional single point fixings is common. Elastic bonding

overcomes this with the much larger contact areas and damping properties of the adhesives.

- Stress transfer between traditionally joined objects is always focused on these few points. Stress peaks can damage both the fixings and the area around them, leading to premature failure. Using a bonding solution allows lower and harmonic stress transfer, due again to the much larger transfer area and the elastic behaviour of the adhesive. Elastic adhesives are generally reactive adhesives and therefore also have better and wider scope of adhesion.
- With elastic bonding:
 - Very different materials can be connected, as the adhesive will compensate movement originating from the different thermal expansion coefficients, or moisture expansion and avoid distortion of the materials.
 - The risk of surface fatigue with substrates exposed to cyclic stress like vibrations can be significantly lowered.
 - Objects can be durably and reliably bonded outdoors, as the elastic adhesives also act as sealants and prevent deterioration of the bond surface.



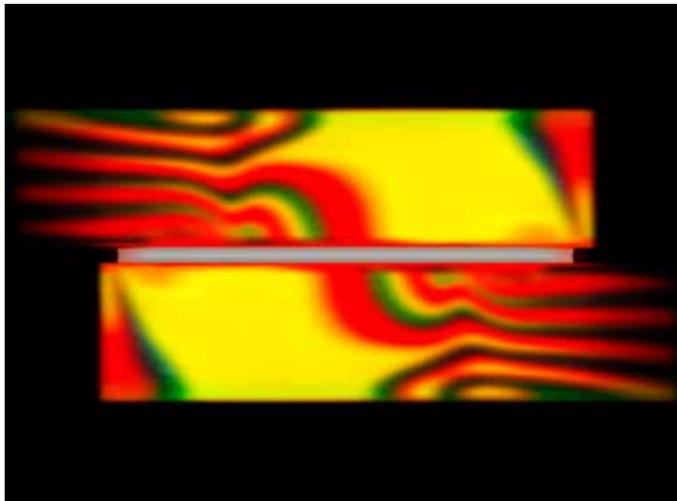
ADHESIVE TECHNOLOGY AND APPLICATION GUIDELINES

GENERALLY THERE ARE TWO KINDS OF BONDING, RIGID AND ELASTIC BONDING, WHICH IS PRODUCED BY THE SELECTED ADHESIVE:

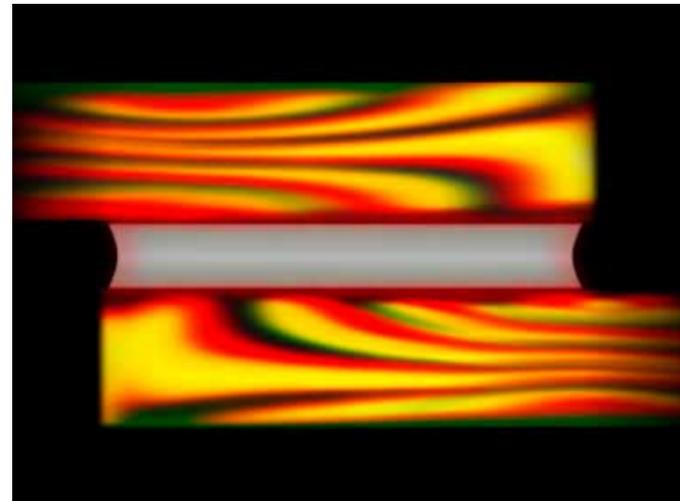
■ **Rigid bonding** is the traditional way, well-known to all of us. The adhesive is applied on surfaces to be bonded, which are then pressed together and after some time the two objects are strongly and rigidly bonded. The adhesive layer between the objects is thin and hard. Load, stress and movement are transferred directly. Rigid bonding is recommended when bonding very similar materials that are not subjected to cyclic stress. Traditional rigid adhesives can be water or solvent borne, as well as hard epoxy adhesives.

■ **Elastic bonding** is a more advanced method. The adhesive is applied in beads or dots on the substrates that are then gently pressed together leaving a thicker layer of adhesive between the objects. After several hours to days, the thick layers are cured and the objects are elastically joined. The adhesive is an intermediate material between the substrates and can accommodate stress and movement.

STRESS PATTERNS IN PHOTOELASTIC MODELS



Rigid bonding.



Elastic bonding.

SUPERIOR BOND TECHNOLOGY

OUR NEW RANGE COMPRISES FOLLOWING TECHNOLOGIES:

Technology	Characteristics	Advantage	Disadvantage
Silane modified polymer (SMP)	<ul style="list-style-type: none"> ■ Elastic bond ■ Cure by polymerization (reactive) 	<ul style="list-style-type: none"> ■ Wide adhesion profile ■ Wide modification range e.g. Rapid adhesives ■ Good weatherability ■ Can be applied on rough surfaces 	
Water borne or dispersion (WB)	<ul style="list-style-type: none"> ■ Rigid bond ■ Harden by water evaporation 	<ul style="list-style-type: none"> ■ Robust and easy to handle ■ Low EHS impact ■ Economic 	<ul style="list-style-type: none"> ■ Only for porous substrates ■ Only for indoor use ■ Only partially works on rough surfaces ■ Hardening speed varies
Solvent borne (SB)	<ul style="list-style-type: none"> ■ Rigid bond ■ Harden by solvent evaporation 	<ul style="list-style-type: none"> ■ Rapid ■ Economic ■ Works well on selected plastics 	<ul style="list-style-type: none"> ■ High EHS impact ■ Solvent can have a bad impact on substrate ■ Only partially works on rough surfaces



REQUIREMENTS FOR SUCCESSFUL BONDING

- **The substrate surfaces must be strong** enough to bear the load. When bonding heavy objects this must be clarified first. Therefore we do not suggest bonding heavy objects to a rendered or painted surface, or on tiles, as the structure may fail because of the poor adhesion of the render, paint or tiles to the wall behind. For heavy objects strong substrates like steel or concrete are obviously good.
- **Surface treatment:** Besides the obvious surface cleaning with a brush and/or solvent, depending on the substrate, treatment with an activator or primer is always an advantage. On difficult substrates, like the high energy surfaces of plastics, an activator will significantly increase the adhesion. On the porous surfaces of concrete and other building materials, primers will increase the adhesion and durability, especially when exposed to weathering.

- **Choosing the right adhesive:** Bonding is all about adhesion and maintaining adhesion and there is never a one-fits-all. Therefore we have different solutions in our portfolio. We have put together the major selection criteria in an overview table to assist making the right choice. For example to bond heavy stone objects outdoors, a reactive high grab adhesive is the best choice; whilst for lighter objects to be bonded indoors on the wall, a water-borne adhesive is sufficient.

THE CONDITION OF THE SURFACE, THE SURFACE TREATMENT, CHOOSING THE RIGHT ADHESIVE AND THE CORRECT APPLICATION ARE KEY FOR THE RIGHT RESULT FOR A DURABLE BOND.

- **Application of the adhesive:** Each technology has its own best method of application.
 - Water-borne adhesives harden upon water loss, which is best achieved by evenly applying smaller strips or dots on one of the substrates, and then firmly pressing together in such a way that a uniform film is spread over the whole surface. Due to the water loss the adhesive will shrink and therefore thick film application will not work.
 - Solvent-borne adhesives harden upon solvent loss. Unlike water-borne adhesives that require a minimum of one substrate being able to take up the water (porous substrate), solvent-borne adhesives can also be used on non-porous substrates. To let the solvent evaporate (flash off) the substrates are taken apart after initial joining for a short time and then re-joined. As with water-borne adhesives they can only work with thin films.

- Reactive adhesives cure by polymerizing. This polymerisation is driven by moisture from the environment (air and substrates). Therefore, reactive adhesives are applied as vertical strips or dots and full surface coverage must be avoided to allow moisture to reach all of the adhesive. As quality reactive adhesives do not shrink, they can be pressed to thick films of 1 – 3 mm. We recommend applying vertical strips or dots, especially in outdoor applications, to avoid water accumulation between the bond interfaces on the adhesive layer, which would have a detrimental effect on the adhesion and substrate surface strength.
- **After initially joining** the objects together, they can still be slightly repositioned easily for a certain time. During the hardening or curing of traditional adhesives the substrates often needed to be mechanically fixed temporarily. However, modern adhesives with high initial grab can overcome this need, by being able to hold the object being bonded in place, even in the uncured state. However the initial bond strength is far from the final strength in the cured state.



Clean substrate before application.



Material and weight of the object are two criteria to use the right adhesive.



Application by stripes.



Application by dots.

PRODUCT SELECTOR

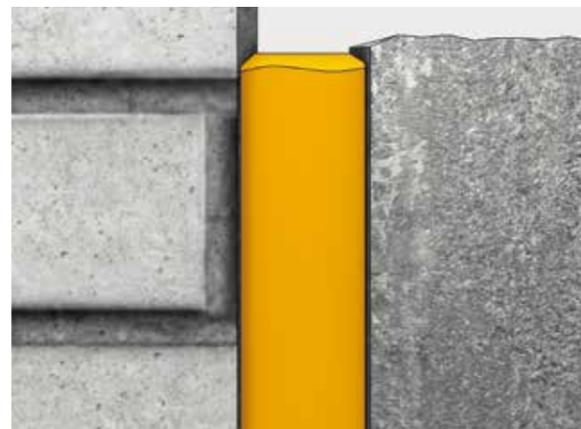
CHOOSING THE BEST ADHESIVE for your application and substrates is crucial for success. In the tables on pages 18 – 19 we have characterized the different products. To fully understand these and use the table to assist you, firstly please review the guidelines below.

ADHESION – THE KEY TO BONDING

- In contrast to classic mechanical fixings, adhesive bonding is about connecting surfaces.
- Durable adhesion of the adhesive to the substrate surfaces is essential for a reliable strong bond.
- Each adhesive has its own specific adhesion range. Therefore please follow the adhesion table for each of the materials that is to be bonded.
- Before bonding always check the substrate's surface strength and clean them. The adhesive will stick to the dirt, but how well is the dirt stuck to the surface?
- Generally the use of primers and activators will significantly increase the adhesion and durability. On plastic surfaces the use of activators, and on porous substrates, the use of primers, will increase the surface wetting ability and hence bond strength of the adhesive. However primers are only adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they significantly improve the strength of the surface.



Connecting different materials:
Check the adhesion profile for both substrates.



Connecting surfaces:
Clean the surfaces as any dirt reduces the bonding area.

BONDING WITH NO INITIAL FIXING DURING CURING

- The temporary mechanical fixing of the objects during curing was a real disadvantage of construction bonding. Temporary fixings are a support, usually by nails or tape. The temporary fixings mean additional work and also need to be removed.
- Grab adhesives need no temporary fixing as they are strong enough in their uncured state to hold the objects in place until the material has fully cured.
- For bonding heavy objects without temporary fixing, a high initial grab adhesive is required. These are usually high viscous adhesives and are generally applied through V-cut nozzle as beads at intervals of a few centimeters as required.
- For lighter objects less initial initial grab is required and these adhesives are easier to apply than the viscous high initial grab adhesives.
- After joining the objects with grab adhesives they can still be adjusted slightly for a limited time.
- Despite no initial fixings being required, the objects cannot be regarded as bonded until the adhesive has completely cured after some hours to days depending on the product used.



Heavy objects need a high grab adhesive that holds them in place during curing of the adhesive.

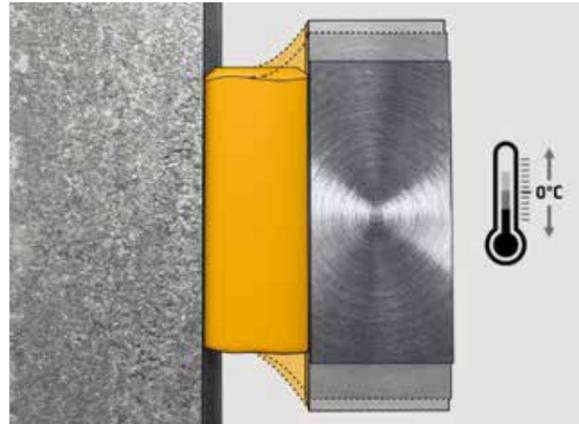


Lighter objects can be bonded using adhesives with little initial grab.

PRODUCT SELECTOR

DURABLE BONDING IS ELASTIC BONDING

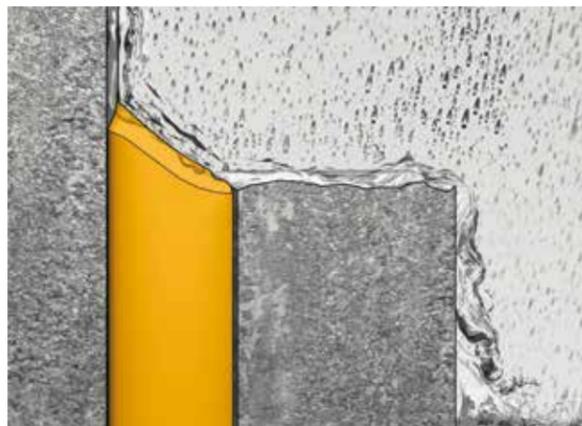
- For lighter objects less initial initial grab is required and these adhesives are easier to apply than the viscous high initial grab adhesives.
- After joining the objects with grab adhesives they can still be adjusted slightly for a limited time.
- Despite no initial fixings being required, the objects cannot be regarded as bonded until the adhesive has completely cured after some hours to days depending on the product used.



Compensating for different thermal expansion behavior of materials.

EXPOSURE TO WEATHER

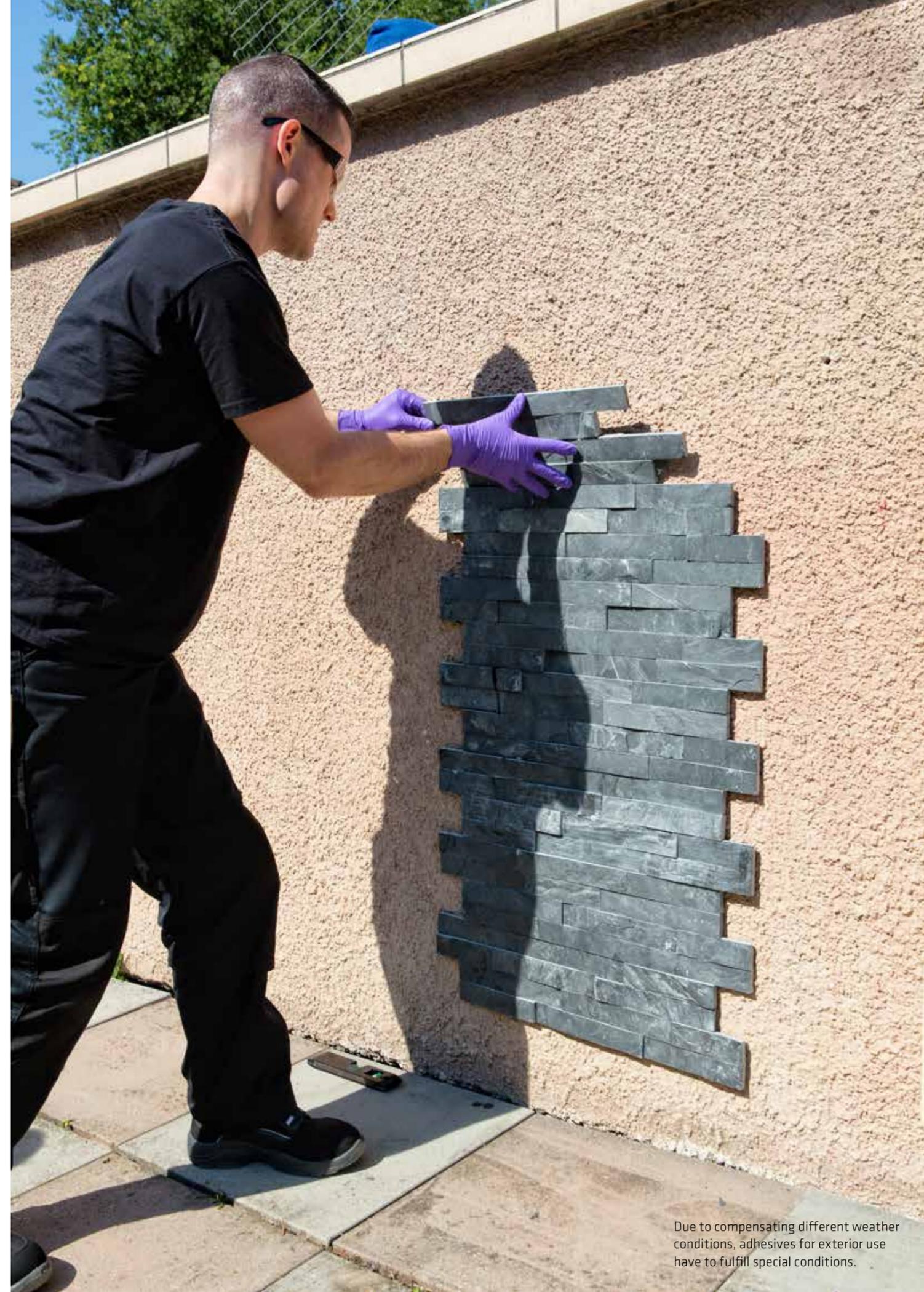
- Elastic adhesives are usually also sealants to a certain extent. Their hardness is higher and their movement capability lower than for defined joint sealants, but it is sufficient for waterproofing the joint between the bonded objects.
- The adhesive must be applied as vertically drawn strips or as dots to avoid standing water on the adhesive surface, which could lead to corrosion of the substrate surfaces.
- Generally the weathering ability of adhesives is lower than for joint sealants; therefore only discrete (non-exposed) joints should be made with elastic adhesive-sealants.
- Water based adhesives should only be used indoors and in dry conditions. The adhesive will soften again with moisture.
- For indoor (and outdoor) applications choose adhesives with low VOC (volatile organic compounds) contents. EHS labels like EC1^{PLUS}, A+, M1 are based on VOC measurements.



Reactive adhesives generally also seal the bond surfaces.



Choose products with low VOC's for your health.



Due to compensating different weather conditions, adhesives for exterior use have to fulfill special conditions.

OVERVIEW FOR PRODUCT SELECTION

PRODUCT CHARACTERISTICS

Product	Sikaflex®-118 Extreme Grab	Sikaflex®-113 Rapid Cure	Sikaflex®-112 Crystal Clear	Sikaflex®-111 Stick & Seal
Description	Very high initial grab	Rapid green strength build-up	Transparent adhesive with grab	Adhesive & sealant
No initial fixing needed	■ ■ ■	■	■ ■	■
Sealant properties	■ ■	■	■ ■	■ ■ ■
Weathering ability*	■ ■	■	■ ■	■ ■ ■
Environmental / emission certifications	EC1 ^{PLUS} R, A+, M1, Phthalate-free	EC1 ^{PLUS} R Solvent-free	EC1 ^{PLUS} R, A+	EC1 ^{PLUS} R, A+, M1 Solvent-free
CE Marking	20HM EXT-INT	12.5P EXT-INT	20HM EXT-INT	20HM EXT-INT
Technology	SMP	SMP	SMP	SMP
Colors	White	White, grey, black	Transparent	White, grey, beige, black

* Discoloration of the adhesive is possible under extensive UV exposure.

MATERIALS AND SUBSTRATES

Product	Sikaflex®-118 Extreme Grab	Sikaflex®-113 Rapid Cure	Sikaflex®-112 Crystal Clear	Sikaflex®-111 Stick & Seal	SikaBond®-115 Strong Fix	SikaBond®-114 Grip Tight
Concrete	▲	▲	▲	▲	△	
Natural stones	▲	▲		▲		△
Ceramic / tiles	▲	▲		▲	△	△
Brick / clinker	▲	▲		▲	△	
Galvanized steel	▲	▲		▲	△	△
Stainless steel	▲	▲		▲	△	△
Aluminium raw	▲	▲	▲	▲	△	△
Aluminium eloxated	▲	▲		▲	△	△
Copper	▲	▲		▲	△	△
Zinc (titanium-zinc)	▲	▲		▲	△	△
Glass	▲	▲	▲	▲	△	△
Mirror	▲			▲	△	△
Wood	▲	▲		▲	△	△
Powder coatings				▲		
PVC				▲		△
PET				▲		
PA				▲		
EPDM rubber				▲		
Compatible with EPS / XPS		OK		OK	OK	
Bitumen / asphalt				OK		
Building wraps				OK		

▲ Elastic adhesives Sikaflex® △ Rigid adhesives SikaBond®

SikaBond®-115 Strong Fix	SikaBond®-114 Grip Tight
Interior decoration	Universal bonding
■	■ ■ after flash-off
-	-
-	-
EC1, A+	
Only adhesive, interior	Only adhesive, int., ext.
Water-based	Solvent-based
White	Beige



Exterior high grab application with Sikaflex®-118 Extreme Grab.

The adhesion of elastic Sikaflex® adhesives is different to adhesion of the rigid SikaBond® adhesives. Elastic adhesives are applied as thick films and the adhesion is determined by a peel test. This tough test determines adhesion by tearing off adhesive beads and originates from industrial bonding. Rigid adhesives are applied as thin films and are hard. Therefore the peel test cannot be applied and adhesion is evaluated by a shear test.

- The adhesion profile listed in the table refers to adhesion on clean, and dry surfaces.
- On porous substrates in particular, adhesion strongly declines when submerged in water. Therefore priming porous substrates is essential to ensure durable adhesion, especially when frequently exposed to high humidity. After thorough cleaning we recommend Sika® Primer 3 N for all inorganic porous substrates.
- On metals and glass the cleaning with solvents like Isopropanol, Acetone or Ethanol is essential to remove processing agents on the surfaces.

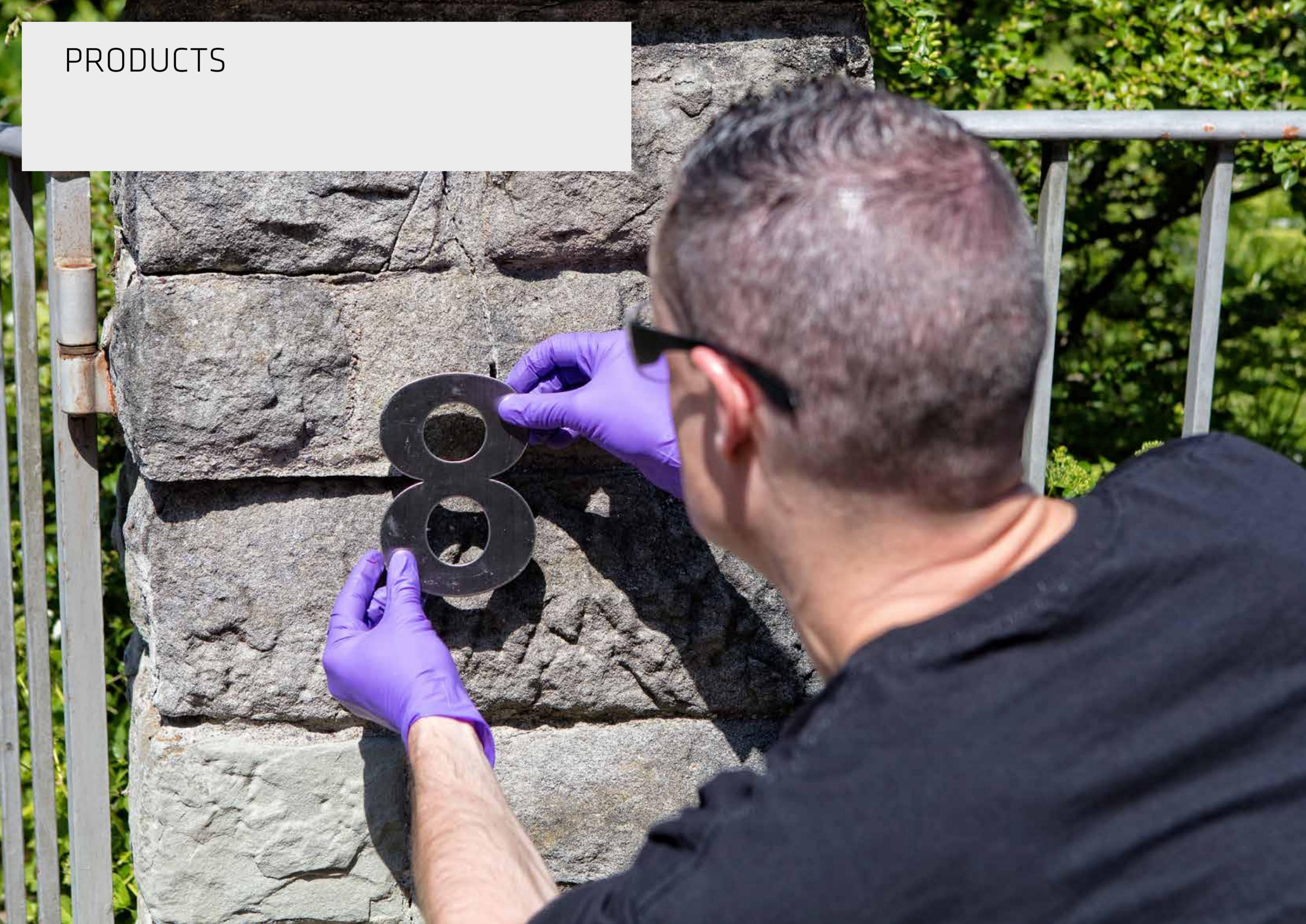
■ Adhesion on polymer surfaces (plastics) is generally difficult due to their poor wetting properties, many different formulations and processing agents on the surface. In addition to thorough cleaning we recommend Sika® Activator-205 to increase adhesion and durability.

The adhesion profiles of the adhesives is very similar, due to their similar chemical nature. The specific products however are formulated and differ very significantly in their uses and application properties.



Interior wood application.

PRODUCTS



PRODUCTS

Sikaflex®-111 Stick & Seal

Elastic multipurpose construction adhesive-sealant

1-component, solvent- and phthalate-free, silane terminated polymer



Bonding of kitchen strips.



Sealing round window frames.



Guttering bonding.



Bonding acoustic tiles.



USES

- For indoor and outdoor use
- Good application properties as adhesive and sealant
- Bonding and sealing of common construction materials and EPS / XPS insulation boards, building wraps and many PVC materials

ADVANTAGES

- No bleeding on bitumen
- Good weathering ability
- Very wide adhesion range
- Easy to apply
- Elastic and durable bond, long-lasting and tight connection

CERTIFICATES

- EMICODE EC1^{PLUS} R
- Émissions d. l'air intérieur A+
- M1
- LEED v4
- CE: EN 15651 - 1F EXT-INT CC 20HM

PACKAGING AND COLORS

- 290 ml / ctr., 12 ctr. / box
- White, grey, beige, black



Sikaflex®-112 Crystal Clear

Transparent construction adhesive-sealant

1-component, solvent-free, multipurpose adhesive-sealant with a crystal clear appearance and good initial grab



Transparent joint sealing.



Bonding of decorative materials.



Bonding of hooks.



Bonding mosaic tiles to walls, exterior.



USES

- For indoor and outdoor use
- Invisible bonding of most common construction materials
- Invisible sealing around bonded objects

ADVANTAGES

- Is transparent and stays transparent
- Good initial grab, no temporary fixing required for light objects
- Strong, durable and elastic bond

CERTIFICATES

- EMICODE EC1^{PLUS} R
- Émissions d. l'air intérieur A+
- LEED v4
- CE: EN 15651-1 F EXT-INT CC 20HM

PACKAGING AND COLORS

- 290 ml / ctr., 12 ctr. / box
- Transparent

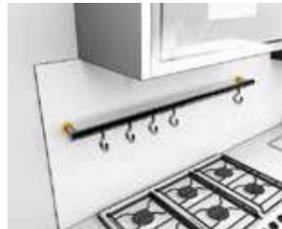


PRODUCTS

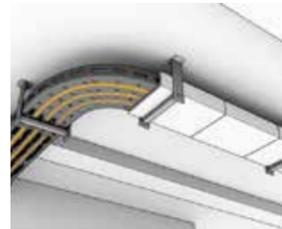
Sikaflex®-113 Rapid Cure

Fast curing assembly adhesive-sealant

1-component, solvent-free, fast curing adhesive



Bonding of metal fitting rods to metal claddings.



Bonding of isolation plates to a pipe.



Bonding of plastic parts to metal furniture.



Bonding of paper dispenser on glazed wall tiles.



USES

- For indoor and outdoor use
- For assembly and installation works
- For bonding common construction materials like glass, metal, EPS / XPS, coatings, concrete, masonry, most stones, ceramic and wood

ADVANTAGES

- Rapid curing. Handling after 20 min. possible
- Easy-to-apply
- Excellent adhesion to glass and metal

CERTIFICATES

- EMICODE EC1^{PLUS} R
- Émissions d. l'air intérieur A+
- CE: EN 15651-1 F INT-EXT CC 12.5P

PACKAGING AND COLORS

- 290 ml / ctr.
- Available in UP600
- White, black, grey



Sikaflex®-118 Extreme Grab

High grab construction adhesive-sealant

1-component, solvent- and phthalate-free, Sika silane terminated polymer



Bonding flower pots on wall.



Bonding stone facing to pillars.



Bonding cupboards to walls.



Bonding mirrors.



USES

- For indoor and outdoor use
- Bonding and sealing of stones, bricks, window and door sills, mirrors, wood beams and heavy landscaping coverings
- Wide adhesion profile; for concrete, mortar, natural stones, clinker, fiber cement, ceramic, wood, metals and glass

ADVANTAGES

- Best-in-class extrusion force to initial grab ratio
- Fixing of heavy objects without temporary fixing. Adhesive keeps the object in position in the uncured state and during curing.
- Good weathering ability, durable and strong bond

CERTIFICATES

- EMICODE EC1^{PLUS} R
- Émissions d. l'air intérieur A+
- M1
- CE: EN 15651 1 F INT-EXT CC 20HM

PACKAGING AND COLORS

- 290 ml / ctr.
- White



PRODUCTS

SikaBond®-114 Grip Tight

Universal construction adhesive

1-component, rubber-resin-based construction adhesive with a very wide adhesion range



Bonding of metal sheets to steel.



Bonding of wood externally.



Bonding of external decorations.



Bonding an internal window sill.



USES

- For indoor and outdoor use
- For bonding of most common construction materials
- Bonding of skirting boards, wood frames and battens, panels and mouldings, wood or hard PVC profiles and metal protection angles

ADVANTAGES

- Reliable and easy to use
- Immediate grab after flash off
- Does not freeze
- Wide application profile and service temperature
- Rapid build-up of strength

PACKAGING AND COLORS

- 290 ml / ctr., 12 ctr. / box
- Beige



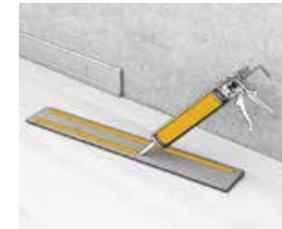
SikaBond®-115 Strong Fix

Interior decoration and construction adhesive

1-component, solvent-free, water-based construction adhesive with high final strength



Bonding of stucco elements to interior walls and sealings.



Bonding of skirting boards.



Bonding of gypsum boards to wooden frames.



Bonding of interior window sills.



USES

- For indoor use
- For bonding on porous construction materials such as concrete, mortar, fiber cement, wood and plaster
- For bonding of skirting boards, battens and mouldings, panels, terracotta tiles, anodized aluminium, hard PVC profiles

ADVANTAGES

- Best-in-class lap shear strength
- Fast build-up of strength
- Best-in-class adhesion
- High final strength

CERTIFICATES

- EMICODE EC1
- Émissions d. l'air intérieur A+
- LEED v4

PACKAGING AND COLORS

- 290 ml / ctr., 12 ctr. / box
- White



PRODUCTS

Sika® Primer-3N

Primer for porous substrates and metals

1-Component solvent primer based on epoxy-polyurethane



USES

- Universal primer
- Suitable for all Sikaflex®, SikaHyflex®, SikaBond® and Sikasil® products
- Used on porous substrates (e.g. concrete) and metals

ADVANTAGES

- Easy to apply
- Water-repellent
- Short flash-off time
- Suitable for hot and tropical climates

PACKAGING AND COLORS

- 250 ml / bottle, 6 bottles / box
- 1 l / bottle, 4 bottles / box
- 5 l can
- Transparent

Sika® Aktivator-205

Pre-treatment agent for non-porous substrates

Solvent based adhesion promoter



USES

- Sika® Aktivator-205 is an alcohol solution containing a bond-activating substance designed for the activation of surfaces prior to bonding and sealing with Sika® products.
- Used on substrates like, metals, plastics, enameled glass (ceramics) and painted surfaces.

ADVANTAGES

- Easy-to-apply
- Fast flush time

CERTIFICATES

ISO 9001/14001

PACKAGING AND COLORS

- 30 ml / bottle
- 250 ml / bottle
- 1 l / bottle
- Transparent

OTHER CONSTRUCTION ADHESIVES FROM SIKA

RIGID BONDING ADHESIVES

Rigid bonding adhesive products are also useful in various steps of a project – from crack injection and small repairs, to rigid bonding of different materials. These products also complete the Sika

range of repair solutions, which also includes mortars, grouts, coatings and anchoring, and strengthening solutions. The products in the Sika rigid bonding range have various benefits such as:

- Excellent adhesion to various substrates
- Good mechanical properties
- Easy to mix and apply

For example,

Sikadur®-31 CF or EF Normal

Multi use, high performance, epoxy adhesive



Clean the substrate.



Push the material into the substrate irregularities.



Smoothing and removal of excess material.



Repaired corner.



USES

- Structural adhesive and mortar for e.g.
 - Concrete elements
 - Hard natural stone
 - Steel, aluminum
 - Wood

Repair mortar and adhesive for:

- Corners and edges
- Holes and void filling

Joint filling and crack sealing:

- Joint and crack arris / edge repair

ADVANTAGES

- Creamy consistency, easy to spread
- Suitable for dry or mat damp concrete surfaces
- High initial and ultimate mechanical strength
- Non-sag and non-slip in vertical and overhead applications
- Can be used on most common construction materials

PACKAGING AND COLORS

- 1.2, 6, 18 kg tins
- Grey

APPROVALS

- CE Marking according to EN 1504-4

OTHER CONSTRUCTION ADHESIVES FROM SIKA

ANCHORING ADHESIVES

Chemical anchors are used in a wide range of applications; for both structural and non-structural applications, in concrete, hollow masonry, solid masonry and other substrates. Threaded rods as well as rebars and other fixing systems can all be installed as chemical anchors.

Bonded anchoring cartridge systems offer a variety of unique benefits against other anchoring techniques. In many cases the bond strength of the fixing is stronger than the substrate, it is bonded into, providing an excellent capacity for very high loads.

Most of the resins can be used in a wide range of base materials, including hollow substrates when used with perforated sleeves. One of the main benefits of using chemical anchoring systems is increased flexibility: No resin system is restricted to a single anchor embedding depth or diameter.

Sika AnchorFix®-1

Fast curing anchoring adhesive

Solvent and styrene-free, polyester, 2-component anchoring adhesive.



Clean hole with a blow pump (>2x) and a brush (>2x).



Repeat cleaning process.



Apply Sika AnchorFix®-1.



Insert the anchor with a rotary motion.



USES

A fast curing anchoring adhesive for all grades of:

- Rebars / reinforcing steel
- Threaded rods
- Bolts
- Concrete
- Hollow /solid masonry
- Hard natural stone
- Solid rock

ADVANTAGES

- Fast curing
- Use at low temperatures
- High load capacity
- Non-sag, even overhead

PACKAGING AND COLORS

- 150, 300 and 550 ml cartridges
- Light grey, beige

APPROVALS

- Injection system for use in masonry according to ETAG 029, ETA-12/0227, CE marking
- Bonded injection type anchor for non-cracked concrete, ETAG 001 annex 1 and 5, ETA-13/0720, CE-marking

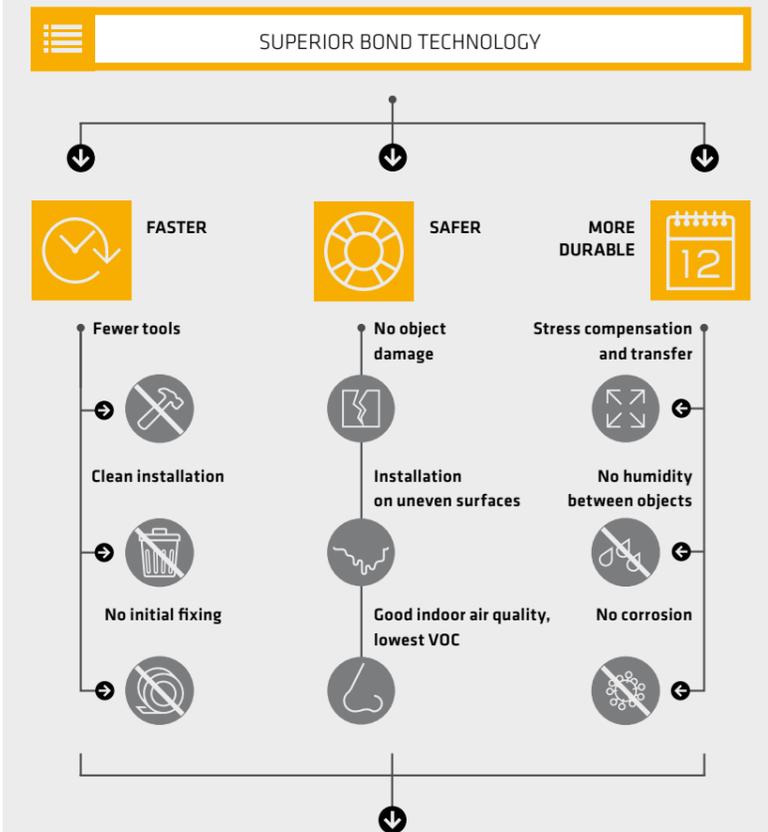
WHY ELASTIC ADHESIVES?

Why elastic adhesives lead to a more powerful bond in comparison with mechanical fixing?

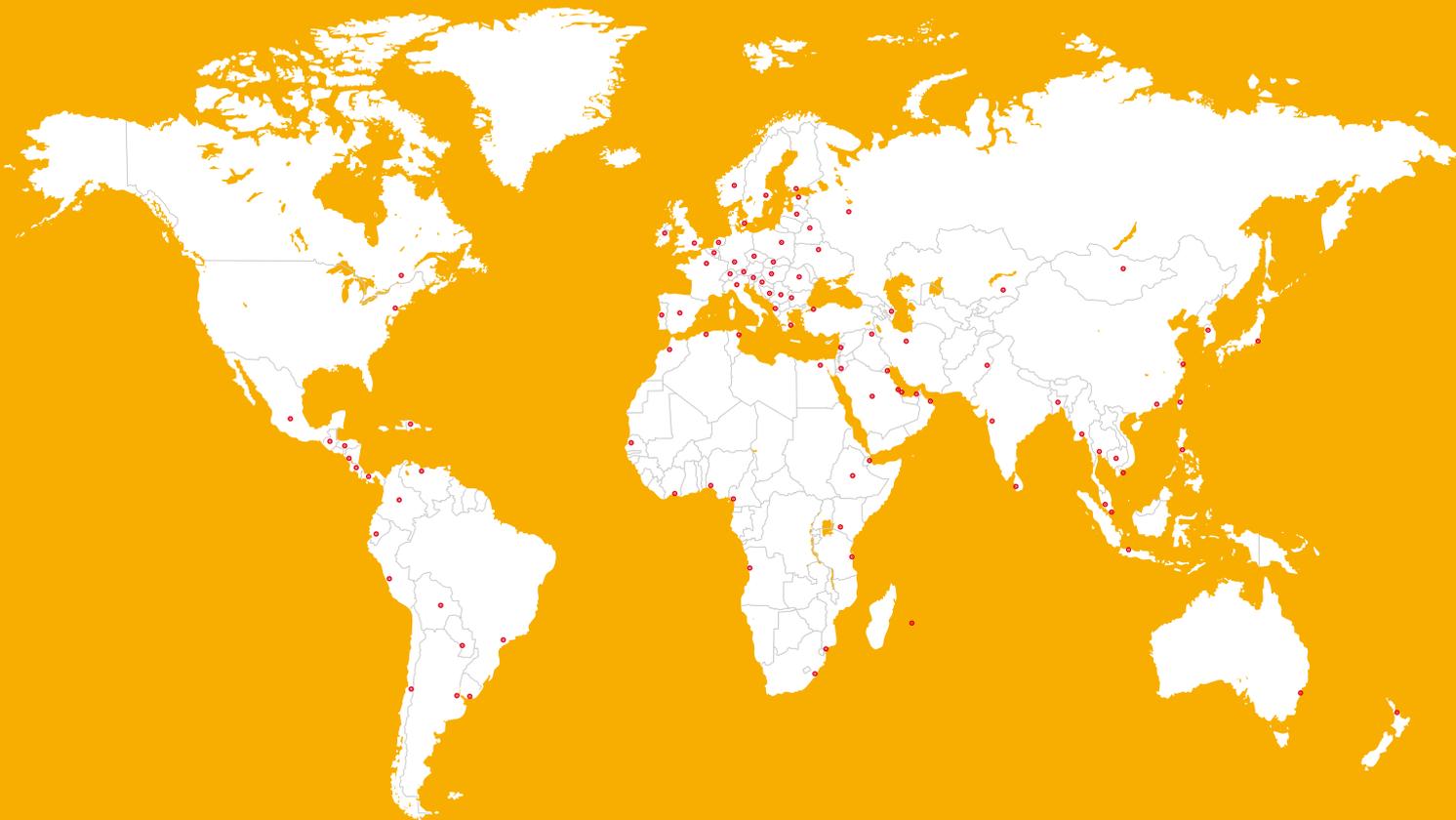
Mechanical fixing is traditionally seen as the strongest and most reliable mounting method, but adhesives can match as well as providing a unique range of advantages that enhance the reliability and durability.

The modern way of mounting is elastic bonding. It has advantages not only in application but also in during the whole lifecycle of the fixing. To achieve a satisfying result, please always consider substrate stability and adhesion properties. See this infographic to know why going without screws and nails really makes sense.

WHY ELASTIC ADHESIVES LEAD TO A POWERFUL BOND IN COMPARISON WITH MECHANICAL FIXING?



GLOBAL BUT LOCAL PARTNERSHIP



FOR MORE SEALING & BONDING INFORMATION:



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, 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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