



# SEALING & BONDING JOINT SEALANTS FOR CURTAIN WALL AND STORE FRONT WATERPROOFING

BUILDING TRUST



# WHERE ARE BUILDINGS MOST VULNERABLE TO WATER INGRESS? AT THE JOINTS!



## SikaHyflex® WEATHERSEALS

Designed for Facade Waterproofing

### THE BUILDING ELEMENTS

**OF YOUR** curtain wall or store front generally do not let water enter the building. It is at the joints where your building is most susceptible to leakage.

Joint sealants compensate and bridge the individual movement of the elements due to temperature changes, moisture, sound, wind and vibrations.

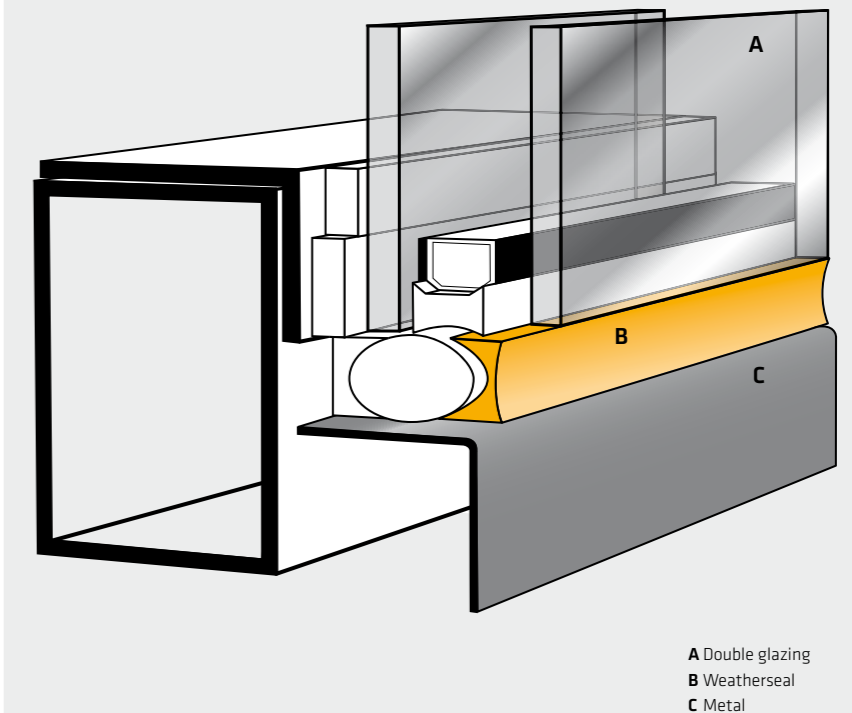
SikaHyflex® weatherseals distinguish themselves through:

- Excellent UV and weatherring resistance
- Improved impermeability to air and driving rain
- Long-term high movement capability

### INDIVIDUAL COLOR SCHEME

For weatherseals and natural stone sealants, Sika offers a range of standard colors, but also project-specific color matching services. Please contact your local Sika representative for the terms and conditions.

### SikaHyflex® TYPICAL APPLICATION



A Double glazing  
B Weatherseal  
C Metal

### SikaHyflex® SILICONES

|                     |                  | SikaHyflex®-905 | SikaHyflex®-605 | SikaHyflex®-305 | SikaHyflex®-355 | SikaHyflex®-105 |
|---------------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Application         |                  | Glass & metal   |                 |                 | Natural stone   | Installation    |
| Skin time           | Minutes*         | 30              | 25              | 25              | 20              | 40              |
| Tack-free time      | Minutes*         | 120             | 120             | 180             | 120             | 140             |
| Curing rate         | mm/24 hrs*       | 3               | 3               | 2               | 2               | 3               |
| Hardness            | Shore a, 28 days | 18              | 20              | 25              | 25              | 26              |
| Movement capability | ASTM C920 class  | 100/50          | 50              | 50              | 35              | 35              |
|                     | ISO 11600 class  | 25 LM           | 25 LM           | 25 LM           | 25 LM           | 25 LM           |

\*23°C / 50% RH

Sika manufactures high quality construction sealants of all major technologies to ensure that your building envelope joints are sustainably air and water tight.

# SEALANTS DEDICATED TO GLASS, METAL, NATURAL STONE FACADE JOINTS



| Type  | SikaHyflex®-905  | SikaHyflex®-605  |
|---|--|--|
|   |  |  |
| <b>Movement capability</b>                        | ASTM C920 class <b>100/50</b><br>ISO 11600 class <b>25 LM</b>                                      | ASTM C920 class <b>50</b><br>ISO 11600 class <b>25 LM</b>  |
| <b>Benefits</b>                                   | Non staining<br>Non streaking<br>Approved for structural glazing adhesive contact                  | Non streaking<br>Approved for structural glazing adhesive contact  |
| <b>Technical approvals</b>                        | EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920<br>ISO 16938-1<br>ASTM C 1248 | EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920<br>ISO 16938-1<br>ASTM C 1248           |
| <b>Environment, health &amp; safety approvals</b> | Silicone, neutral cure<br>Solvent free<br><br>LEED v4 Attestation                                  | Silicone, neutral cure<br>Low emission, low odor<br>Solvent free<br><br>EMICODE EC1 R<br>LEED v4 Attestation |

**SIKA SEALANTS WILL LET YOUR APPLICATORS DO AN EFFICIENT, RELIABLE AND ATTRACTIVE JOINT SEALING JOB.**

**ADVANTAGES:**

- Low application forces for efficient application
- Non-sag behaviour, so the product stays where it was applied
- Short cut-off string, so the facade elements are not messed up and no time is lost for cleaning
- Good body and tack-free surface making it easy to tool and achieve a visually attractive surface finish
- Low smell and low VOC making the application of Sika sealants a pleasure

**SIKA SEALANTS ARE THE FIRST CHOICE OF APPLICATORS WORLD WIDE!**

| SikaHyflex®-305  | SikaHyflex®-355  | SikaHyflex®-600  | SikaHyflex®-300   |
|--|--|--|---|
|  |  |  |   |
| ASTM C920 class <b>50</b><br>ISO 11600 class <b>25 LM</b>  | ASTM C920 class <b>35</b><br>ISO 11600 class <b>25 LM</b>  | ASTM C920 class <b>25</b><br>ISO 11600 class <b>25 LM</b>  | ASTM C920 class <b>25</b><br>ISO 11600 class <b>25 LM</b>   |
| Very good adhesion to a wide range of substrates<br>Approved for structural glazing adhesive contact | Non staining, especially for natural stone facades<br>Non streaking                                | Translucent/metallic look<br>Approved for structural glazing adhesive contact  | Translucent/metallic look<br>Very good adhesion to a wide range of substrates<br>Approved for structural glazing adhesive contact |
| EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920                                 | EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920<br>ISO 16938-1<br>ASTM C 1248 | EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920   | EN 15651-1<br>EN 15651-2<br>ISO 11600 F<br>ISO 11600 G<br>ASTM C 920  |
| Silicone, neutral cure<br>Solvent free<br><br>LEED v4 Attestation                                    | Silicone, neutral cure<br>Solvent free<br><br>LEED v4 Attestation                                  | Silicone, neutral cure<br>Low emission, low odor<br>Solvent free<br><br>EMICODE EC1 <sup>PLUS</sup> R<br>LEED v4 Attestation | Silicone, neutral cure<br>Solvent free  |

**Sika is more than** just an ordinary silicone compounder. Sika develops and produces competitive and best in class formulations for a wide range of applications such as automotive, structural glazing and weather sealing. Sika has unique building blocks and polymerization mechanisms and can adjust the properties needed, from super tough to highly elastic.

# ENSURING GOOD ADHESION

Primers for all Materials and Applications

## SEALANTS SUITABLE FOR NATURAL STONES

Natural stones such as granite, marble and sandstone are beautiful but highly sensitive materials when used on facades. If an inappropriate sealant is used, there will be staining on the joint edges or streaking on the surface, which greatly impairs the optical appearance of the facade. We therefore recommend our non-staining, non-streaking natural stone silicone weather sealant – SikaHyflex®-355. This sealant meets the ASTM and ISO standards for natural stone. With natural stones the pre-treatment needs to be carefully evaluated too as unsuitable primer application can also lead to staining.

## JOINT PRE-TREATMENT – PRIMERS, ACTIVATORS AND CLEANERS

Strong and durable adhesion of the sealant to the substrate is the essence of joint sealing. No adhesion means water ingress. Therefore, we recommend to pre-treat the joints before sealant application. The effort and cost of pre-treatment before the initial sealant application is very small in comparison to the gain in durability and service life of the joint.

Good adhesion is achieved by several means on different substrates. For non-porous substrates the pre-treatment is chosen according to the material:

## CHOOSING THE CORRECT PRIMER

| Product             | Chemistry           | Non porous             |                             |       |
|---------------------|---------------------|------------------------|-----------------------------|-------|
|                     |                     | Metals & Coated Metals | Plastics & Certain Coatings | Glass |
| Sika® Primer-3N     | Solvent based Epoxy | X                      | X for coatings              |       |
| Sika® Primer-215    | Solvent based PU    | X                      | X                           |       |
| Sika® Aktivator-100 | Solvent based       | X for PVDF             |                             |       |
| Sika® Aktivator-205 | Solvent based       | X                      |                             |       |
| Sika® Cleaner P     | Solvent based       | X                      |                             | X     |
| Sika® Cleaner G&M   | Solvent based       | X                      |                             | X     |

Generally, primers, activators and cleaners are selected according to the substrate and not to the sealant technology. All our sealants are compatible with our primers.

- **Metals and powder coated metals:** Besides cleaning and removing processing agents from the surface, activators leave adhesion promoters on the surface to ensure good wetting and adhesion. Cleaners are special solvents to clean the substrate surface. Primers are used to prevent corrosion at the interface of the metal and sealant.
- **Plastics:** Generally the adhesion of sealants to plastics is often poor, independent of the sealant technology. Therefore, a pre-treatment is needed often with activator and primer. The pre-treatment changes the surface energy to enable durable adhesion.
- **Glass:** Generally glass only needs to be correctly cleaned by a good cleaner before sealant application. Sika silicone weather sealants have excellent adhesion to glass. If primers or activators are used this must be done with great care as the adhesion promoters in the primers and activators may leave a visible film on the glass surface.

Primer application does not replace the usual joint preparation. Before the primer and sealant application, the joint must be well cleaned from all processing agents, dirt and dust. The substrate surface must be capable to withstand the elastic forces from the sealant movement. If this rule is disobeyed, the substrate will crack near the surface. Therefore a serious substrate preparation is essential.

# CHOOSING THE RIGHT PRODUCTS FOR YOUR BUILDING ENVELOPE JOINTS

**SIKA HAS A BROAD** portfolio of products to ensure that your building envelope joints are sustainably air and water tight. The best performance for your application is the key issue, therefore Sika produces high quality products in all major technologies.

## SIKA RECOMMENDS:

- For porous substrates like concrete, bricks and masonry, choose Sika's advanced polyurethane sealants.
- For applications where a wide adhesion range is required like for window installations, the unique silane-modified-polymer sealants are best suitable.
- For glass and metal substrates use Sika's high quality silicone weather-seals.

Sika has a long history in building envelope joint sealants. All Sika products are the fruit of many years of experience, outstanding R&D capabilities, continuous adaptation and improvement to modern construction materials and practices and state of the art production sites. As we are globally present, we can respond to your needs and local requirements wherever you are realizing projects.

Using Sika products is a decision for competence, performance, security and a reliable partner.

**AVOID MAKING MISTAKES WHERE YOUR BUILDING IS MOST VULNERABLE TO LEAKAGE – CHOOSE SIKA.**

## POROUS SUBSTRATES: CONCRETE AND MASONRY SEALANTS

| Product   | Movement capability |                 | VOC Emission Classification                      |
|---|---------------------|-----------------|--|
|   | ASTM C 920 Class    | ISO 11600 Class |  |
| SikaHyflex®-250 Facade                                  | 100/50              | 25 LM           | EC1 <sup>PLUS</sup> R, solvent free, M1, LEED v4 |
| Sikaflex®-1A Plus                                       | 50                  | 25 LM           | EC1 <sup>PLUS</sup> R, solvent free, M1, LEED v4 |
| Sikaflex® AT-Facade                                     | 25*                 | 25 LM           | EC1 <sup>PLUS</sup> R, solvent free, LEED v4     |
| SikaHyflex®-160 Construction<br>Sikaflex® Construction+ | 35                  | 25 HM           | EC1 <sup>PLUS</sup> R, solvent free, LEED v4     |
| Sikaflex®-1A  | 35                  | 25 HM*          |  |
| SikaHyflex®-140 Construction                            | 25                  | 25 HM           | LEED v4  |
| Sikaflex® Precast                                       | 25                  | 25 HM           |  |

\* Internally measured

## WIDE ADHESION PROFILE: PERIMETER SEALANTS FOR INSTALLATION

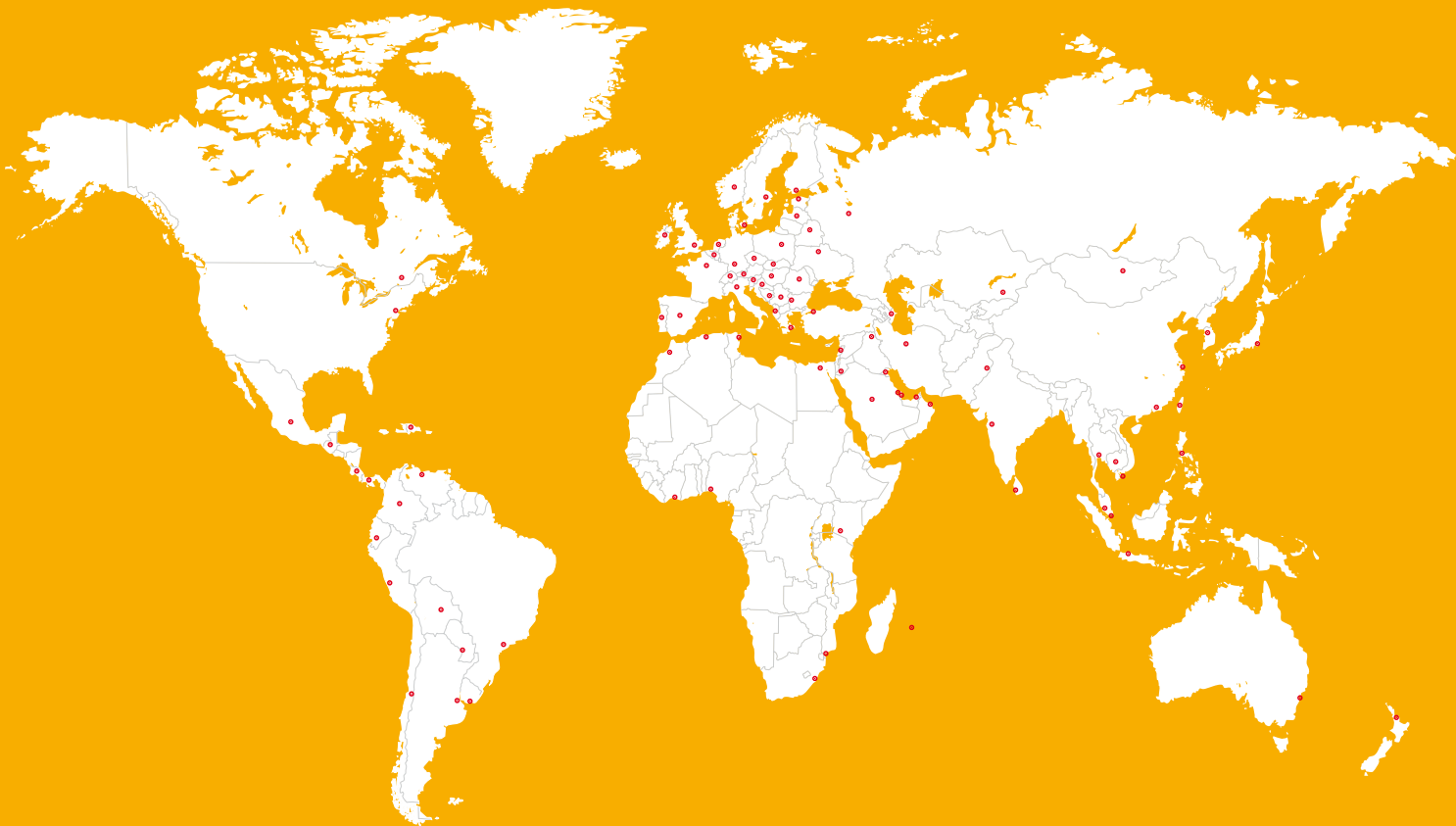
| Product                    | Movement capability |                 | VOC Emission Classification                                  |
|----------------------------|---------------------|-----------------|--|
|                            | ASTM C 920 Class    | ISO 11600 Class |  |
| SikaHyflex®-220 Window     | 25*                 | 25 LM           | EC1 <sup>PLUS</sup> R, solvent free, LEED v4                 |
| SikaHyflex®-225 Connection | 25*                 | 25 LM           | EC1 <sup>PLUS</sup> R, solvent free, LEED v4, phthalate free |
| Sikaflex® AT-Connection    | 25*                 | 25 HM           | EC1 <sup>PLUS</sup> R, solvent free, LEED v4                 |
| SikaHyflex®-105            | 35                  | 25 LM           | Solvent free   |

\* Internally measured

Some sealants are applied in the facade but also inside the building where volatile organic content (VOC) and other sealant components like phthalates, tin catalysts and isocyanates may become an issue, depending on the local regulations or green building requirements. Sika has sealants and primers that meet all these requirements!

Our installation sealants are widely used for interior sealing as they have a much higher movement capability and better adhesion than acrylics and can be overpainted. Mainly in wood construction joints are exposed to higher movement due to seasonal humidity variations.

# 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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