

SIKA® BUILDING FACADE JOINT SEALANT CLEANING, CARE AND MAINTENANCE INSTRUCTIONS

SIKAFLEX JOINT SEALANTS - GENERAL

Sika® construction joint sealants are designed to allow cyclic thermal expansion and contraction of the building façade. The applications include control joints between façade panels, window and door connection joints. The durability and therefore weathertightness of construction joints is largely dependant on the following factors;

- Correct joint design dimensioning
- Correct product selection
- Correct product installation

Sika® construction joint sealants applied and maintained in accordance with manufacturer's instructions offers weather-tight performance in accordance with the New Zealand Building Code.

The following recommendations are designed to assist with the correct cleaning, care, maintenance and repair of Sika® construction joint sealants. As substrate and environment vary widely, a customised cleaning regime may be required for unusual or special conditions that differ from local natural environmental conditions.

INSPECTION

Joint sealants should be inspected at least annually, and as soon as any water ingress through the joint sealant is suspected.

This annual inspection of the joint sealants is typically carried out as part of a general building façade survey; however the information given in this document is limited to the inspection of the joint sealants only.

The first stage of the inspection is a simple visual inspection of the joint sealants to identify any:

- Loss of adhesive bond (i.e. the sealant not sticking to the sides of the joint).
- Sealant cohesive tearing (i.e. a tear or split in the joint sealant itself).
- Substrate cohesive failure (i.e. where the substrate has failed near the bond line. In this case, the sealant is still sticking to the substrate, but the substrate itself has failed.)
- Any evidence of water leakage.

As joint sealant failures may not be readily apparent by visual inspection alone, it may be useful, as part of the "visual" assessment, to gently prod the joint sealant with a blunt instrument. This may reveal a loss of adhesive bond that is not obvious from merely looking at the sealant.

On large commercial projects it is often not practical to inspect all of the joint sealant and a partial survey is often taken. The frequency of inspections (i.e. how many joints need to be inspected, or the number of inspections along the length of a joint) need to be agreed with the building owner. This frequency is typically increased if joint failures are found.

If joint sealant failure is discovered then a survey of the failures needs to be completed. This will assist a proper assessment of the cause of the failure (such as degradation of the joint material, excessive joint movement, poor installation procedures, etc) and will enable a proper specification for the joint sealant replacement to be written. The following information should be recorded:

- Location of the failures. (It can be helpful to mark these locations on a drawing of the building elevation.)
- Types of joint substrate.
- General condition of the joint sealant.
- Joint spacing
- Joint configuration (width to depth ratio). This needs to be determined by cutting out samples of the sealant.
- The condition of the joint backing material (at the cut out areas). What is the backing material? Does it appear dry or wet?
- The condition of the joint substrate.
- General observations, relating to such things as evidence of water leakage, evidence of previous repairs and maintenance, any cracking or other damage of the substrate, etc.

CLEANING INSTRUCTIONS - GENERAL

It is recognised that Sika® joint sealant cleaning may be undertaken as part of the general cleaning of painted façade surfaces, therefore reference to paint manufacturer's cleaning instructions should be read and understood before any cleaning takes place. Any conflicting instruction regarding method, equipment or cleaning agents, etc. should be referred back to both the paint and sealant manufacturers prior to commencing cleaning.

CLEANING INSTRUCTIONS:

1. **Cleaning of joint sealant should be carried out annually.**
2. **Carry out cleaning with cold or warm (<50°C) clean, low pressure water in conjunction with a mild strength detergent normally recommended for cleaning paint coating systems.**
3. **Removal of heavier surface contaminate build up can be achieved using a soft bristle scrubbing brush.**
4. **Rinse all cleaned joint sealant surfaces with fresh clean water.**

The following cleaning practices are likely to damage joint sealants and therefore are not acceptable:

- Heavy mechanical scrubbing and cleaning.
- High pressure water blasting (mains pressure cleaning only).
- Hot liquid cleaning at temperature in excess of 50°C.
- Aggressive chemical cleaning agents including ammonia and hypochlorite or similar.
- Long term dwell time of the cleaning agent on the joint sealant (typically in excess of 3 to 5 hours).

Sika (NZ) Ltd has no expertise in cleaning agents therefore only limited advice can be expected. It is recommended that technical advice be obtained from the cleaning agent manufacturer and/or a limited on site trial be undertaken prior to full application.

PAINTING JOINT SEALANTS

Sikaflex[®] joint sealants are generally paintable with water based paint systems. Nevertheless it should be noted that a wide variety of brands and chemical composition of water based paints systems are available. It is therefore recommended that technical advice be obtained from the paint manufacturer and/or a limited on site trial be undertaken prior to full application.

Further to the above, Sikaflex[®] joint sealants are designed to be elastomeric. In many cases painting joint sealants can result in limiting movement capacity. This can lead to unsightly paint cracks, or worse, joint failure. For this reason Sika (NZ) Ltd does not recommend painting joint sealants.



Cracked paint film over joint sealant

REPAIR OR REPLACEMENT OF DAMAGED OR WEATHERED JOINT SEALANT

Joint sealants are an important component of a weathertight building façade. The product and application costs are a very small component of design and construction but contribute significantly to the weathertightness.

Sikaflex[®] joint sealants are designed to be durable in accordance with the New Zealand Building Code. However the effects of UV and other weathering will eventually affect joint sealants. Often degradation due to weathering manifests itself in surface chalking and cracking. Whilst surface cracking and Chalked and cracked sealant chalking results in an undesirable visual appearance it is likely that the body of sealant below the surface is still serviceable and weathertight. Consequently, minor surface cracking and chalking of the sealant surface seldom necessitates joint sealant replacement



However the joint sealant shall be replaced:

- In the event of a split or penetration of the joint sealant (compromising weather- tightness)
- As preventative maintenance, If it is assessed that the joint sealant may fail or weathertightness maybe compromised prior to the next scheduled inspection. (This is especially important where access is difficult or expensive to effect.)

When repairing joint sealants the following needs to be considered.

- Compatibility with the original sealant.
- Correct sealant selection (type, movement capacity, etc.)
- Understanding of the cause of failure (joint design, application, product, etc.)
- Understanding of the correct application of the joint sealant including primers, substrate pretreatment, etc.

For the above reasons Sika® joint sealants should be repaired using a trained and approved Sika (NZ) Ltd joint sealant contractor. In addition advice should be sort from Sika (NZ) Ltd on product selection and repair method.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.