

Sikaflex[®]-221

One-component adhesive sealant

Technical Product Data:

Chemical base	One-component polyurethane
Colour	White, grey, black
Density (DIN 53479) (uncured)	1.30 kg / l, approx. depending on colour
Stability (non-sag properties)	Good
Application temperature	5°C to 40°C
Cure mechanism	Moisture-curing
Tack-free time ¹⁾	60 min.
Rate of cure ¹⁾	3 mm per 24 hrs. (see diagram)
Shrinkage (DIN 52451)	5% approx.
Shore A hardness (DIN 53505)	40 approx.
Tensile strength (DIN 53504)	1,8 N / mm ²
Elongation at break (DIN 53504)	500% approx.
Tear strength (DIN 53515)	6 N/mm approx.
Glass transition temperature (DIN 53445)	-45°C approx.
Service temperature (continuous)	-40°C to +90°C
4hr	160°C
1hr	180°C
Volume resistivity (DIN 53482)	10 ¹⁰ Ω cm approx.
Movement accomodation factor	10% of joint width
Shelf life (stored below 25°C)	12 months

¹⁾ At 23°C and 50% relative humidity

Description:

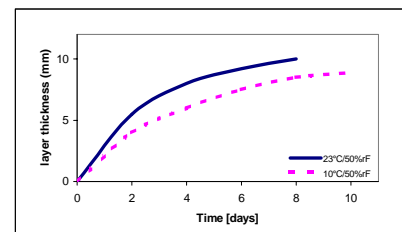
Sikaflex[®]-221 is a high-quality multi-purpose non-sag one-component polyurethane sealant that cures on exposure to atmospheric moisture to form a durable elastomer. Tried and tested in service for many years, Sikaflex[®]-221 is manufactured in accordance with the ISO 9001/14001 quality assurance system.

Product benefits:

- One-component formulation
- Elastic
- Low odour
- Resistant to ageing and exposure
- Non-corrosive
- Can be overpainted
- Can be sanded
- Bonds well to a wide variety of substrates
- Approved for contact with foodstuffs

Cure mechanism:

Sikaflex[®]-221 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower (see diagram).



Areas of application:

Sikaflex[®]-221 bonds well to a wide variety of substrates and is suitable for making permanent elastic seals of high adhesive strength.

Suitable substrate materials are timber, metals, metal primers and paint coatings (two-component systems), ceramic materials and plastics.

Seek manufacturer's advice before using on transparent and pigmented materials that are prone to stress cracking.

Chemical resistance:

Sikaflex[®]-221 is resistant to fresh water, seawater, limewater, sewage effluent, diluted acids and caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, alcohol, concentrated mineral acids and caustic solutions or solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of application:

Surface preparation. The faces of the joint must be clean, dry and free from all traces of grease, oil and dust. As a rule, the substrates must be prepared in accordance with the instructions given in the current Sika Primer Chart.

Application. For cartridges: pierce the cartridge membrane and peel back completely. For unipacs: place in the application gun and snip off the closure clip.

Cut off the tip of the nozzle to suit joint width and gun the sealant into the joint with a suitable hand-operated or compressed-air gun, taking care to avoid air entrapment. Once opened, packs should be used up within a relatively short space of time.

Do not apply at temperatures below 5°C or above 35°C. The optimum temperature for substrate and sealant is between 15°C and 25°C.

Tooling and finishing. Tooling and finishing must be carried out within the tack-free time of the sealant. Finishing agents must be tested for suitability / compatibility.

Overpainting. Sikaflex[®]-221 can be overpainted when tack-free. The paint must be tested for compatibility by carrying out preliminary trials. Do not use Alkyd resin paints as they remain permanently tacky. Baked enamels should not be applied to Sikaflex[®]-221 until the sealant has attained full cure. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film.

Removal. Uncured Sikaflex[®]-221 may be removed from tools and equipment with Sika[®] Remover-208. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleanser and water. Do not use solvents!

Further information:

Copies of the following publications are available on request:

- Sika Primer Chart
- Safety Data Sheet

Packaging information:

Cartridge	310 ml
Unipac	600 ml

Important:

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Note:

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 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Technical Data Sheet for the product concerned, copies of which will be supplied on request.



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