BUILDING TRUST

PRODUCT DATA SHEET

Sikasil® DW

Acetoxy curing silicone sealant for joints in contact with potable (drinking) water

PRODUCT DESCRIPTION

Sikasil® DW is a one part acetoxy curing silicone sealant especially designed for joints in contact with potable (drinking) water.

USES

Sikasil® DW is especially suitable for joints in contact with potable (drinking) water, e.g. in the water industry in drinking water reservoirs, tanks, treatment and filtration plants.

CHARACTERISTICS / ADVANTAGES

- Good chemical resistance, e.g. to dilute acids
- High tear resistance
- High UV resistance
- Excellent weathering and ageing resistance

APPROVALS / STANDARDS

- This product has been tested to meet the requirements of Regulation 31 (4)(b) of the Water Supply (Water Quality) Regulations 2000. The Secretary of State is satisfied that this product either alone or in combination with any other substance or product in the water is unlikely to affect adversely the quality of the water supplied. A copy of test report BS 6920-1: 2014 (M 106171) is available on request.

PRODUCT INFORMATION

Chemical Base	Acetoxy silicone	
Packaging	600 ml foil packs	
Colour	Transparent, Black and Signal Grey	
Shelf Life	12 months from date of production	
Storage Conditions	Sikasil® DW must be stored in undamaged and unopened original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10 °C and +25 °C.	
Density	~ 1.05 kg/l	(DIN 53 479)

TECHNICAL INFORMATION

Shore A Hardness	~ 25 (after 28 days)	(ISO 868)
Secant Tensile Modulus	~ 0.5 N/mm² at 100 % elongation (23 °C / 50 % r.h.)	(ISO 8339)
Elastic Recovery	> 90 %	(ISO 7389)

Movement Capability	± 25 %	(ISO 9047)
Service Temperature	-40 °C min. / +180 °C max.	
Joint Design	The joint dimensions must be designed to suit the movement capability of the sealant. For joint widths ≥ 10 mm and < 15 mm, a minimum depth or thickness of 6 mm must be applied. For larger joints contact Sika Technical Services for additional information.	

APPLICATION INFORMATION

Consumption

Joint width [mm]	Joint depth [mm]	Joint length [m] per 300 ml
10	8	3,5
15	10	2,0

Consumption depends on the roughness and absorbency of the substrate.These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Sag Flow	< 2 mm	(ISO 7390)
Ambient Air Temperature	+5 °C min. / +35 °C max.	
Substrate Temperature	+5 °C min. / +35 °C max.	
Curing Rate	~ 2.5 mm/24 h (23 °C / 50 % r.h.)	(CQP 049-2)
Skin Time	~10 minutes	(CQP 019-1)

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- Sikasil® DW cannot be overpainted.
- Sikasil® DW Is not recommended for porous substrates, such as natural stone, marble and granite. Staining from plasticiser migration may occur when used on these substrates. Preliminary trials must be carried out to check if the substrate experiences staining before full project application.
- Do not use for medical or pharmaceutical applications.
- Acetic acid released during curing can cause the corrosion of mirror silver and sensitive metals such as copper, brass and lead.
- Do not use directly on alkaline surfaces such as concrete, plaster, render and brick.
- Do not use on bituminous substrates, natural rubber, chloroprene, EPDM or on building materials which might bleed oils, plasticizers or solvents that could degrade the sealant.
- Cure Sikasil® DW fully before immersion in water, minimum 4 days up to 14 days (dependent on the temperature, ambient humidity and the thickness of the sealant applied).
- Do not use in totally confined spaces because Sikasil® DW requires atmospheric moisture to cure. If the space is confined suitable ventilation and air supply must be available.
- The required vulcanisation or curing time extends with the increasing thickness of the sealant applied.
- One component silicones must not be used for bonding applications where the silicone is spread all over the surface. Such applications require a different type of sealant formulation – please contact your local Sika Technical Service Department for advice.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect the adhesion of the sealant. The substrate must be of sufficient strength to resist the stresses induced by the sealant during movement. Removal techniques such as wire brushing, grinding, grit blasting or other suitable mechanical tools can be used. All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or sealant. For optimum adhesion and joint durability, the following substrate priming (and/or pre-treatment) procedures must be followed:

Non-porous substrates
Aluminium, anodised aluminium, stainless steel, galvanised steel, powder-coated metals or glazed tiles. Slightly roughen surface with a fine abrasive pad. Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. Before sealing, allow a waiting time of > 15 minutes (<6 hours). Other metals, such as copper, brass and titanium-zinc, should be cleaned and pre-treated using Sika® Aktivator-205 applied with a clean cloth. Allow a waiting time of > 15 minutes (< 6 hours). Glass must be cleaned with Isopropanol before application.
Porous substrates
Porous substrates, specifically cement-based, must be primed with Sikagard 62. For Sikagard 62 before bonding/sealing, allow 30 hours for the Sikagard 62 to fully cure. For more details such as application and flash-off times, refer to the most recent Product Data Sheet of the respective pre-treatment product. Adhesion tests on project-specific substrates must be performed and procedures agreed with all parties before full project application. For more detailed advice and instructions contact Sika Technical Services.
Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation /cleaning of the joint surface. Primers also improve the long term adhesion performance of the sealed joint.

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Masking
It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skinning time after finishing.
Joint Backing
After the required substrate preparation, insert a suitable backing rod to the required depth.
Priming
If required, prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.
Application
Sikasil® DW is supplied ready to use.
Prepare the end of the foil pack, insert into the sealant gun and fit the nozzle. Extrude Sikasil® DW into the joint ensuring that it comes into full contact with the sides or surface of the joint and avoiding any air entrapment.

Finishing
As soon as possible after application, the sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish. Use a compatible tooling agent to smooth the joint surface. Water can be used. Do not use tooling products containing solvents

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208. Once cured, hardened material can only be removed mechanically. For cleaning skin use Sika® Wonder Wipes.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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.

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