BUILDING TRUST

PRODUCT DATA SHEET

Sikasil®-408 Drinking Water

Neutral cure silicone joint sealant for joints in contact with potable water

PRODUCT DESCRIPTION

Sikasil®-408 Drinking Water is a neutral-curing silicone sealant. It is used for durably sealing joints that are in contact with potable water.

USES

Sikasil®-408 Drinking Water is used for sealing:
- Drinking water reservoirs
- Potable water concrete and bolted steel tanks
- Water treatment and filtration plants
- Water industry

CHARACTERISTICS / ADVANTAGES

- Easy to extrude and tool
- Movement capability of ± 50 % (ASTM C 719)
- Non-corrosive to metals
- Very good tear propagation resistance
- Approved for contact with potable (drinking) water
- Very good resistance to specific chemicals

PRODUCT INFORMATION

Chemical Base	Neutral alkoxy silicone	
Packaging	300 mL catridge, 12 cartridges per box 600 mL foil pack, 20 foil packs per box	
Colour	Available in grey and black.	
Shelf Life	12 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.	
Density	1.35 kg/L	(ISO 1183-1)
Product Declaration	ASTM C 920-18	Type S, Grade NS, Movement Class 50, Use NT, Use M, Use G, Use A

TECHNICAL INFORMATION

Shore A Hardness	Cured 28 days at +23 °C and 50 % r.h.	25	(EN ISO 868)

Tensile Strength	Cured 7 days at +23 °C and 50 % r.h.	2.25 MPa	(ISO 37)
Secant Tensile Modulus	Cured 28 days at +23 °C and 50 % r.h. Measured at 100% elongation at +23 °C	0.4 N/mm²	(ISO 8339)
	Cured 28 days at +23 °C and 50 % r.h. Measured at 100% elongation at -20 °C	0.6 N/mm²	
Elongation at Break	1000 %		(ISO 37)
Elastic Recovery	80 %		(EN ISO 7389)
Tear Propagation Resistance	Cured 7 days at +23 °C and 50 % r.h.	9 N/mm	(ISO 34-2)
Movement Capability	± 25 % ± 50 %		(EN ISO 9047) (ASTM C920-18)
Service Temperature	Maximum	+120 °C	
	Minimum	-40 °C	
Joint Design	For movement joints, the width must be at least 8 mm and should not exceed 40 mm. For non-movement joints such as connection joints in interior areas, the joint width can be less than 8 mm. The joint dimensions must be designed to suit the movement capability of the sealant. In all cases joints must be at least 8 mm deep or a have a width to depth ratio of 2 : 1 whichever is greater. For more information about joint design and calculations refer to the Sika document Design guideline: Dimensioning of construction joints or contact Sika Technical Services.		

APPLICATION INFORMATION

Backing Material	Use closed cell, polyethylene foam backing rod.		
Product Temperature	Maximum	+40 °C	
	Minimum	+5 °C	
Ambient Air Temperature	Maximum	+40 °C	
	Minimum	+7 °C	
Substrate Temperature	Maximum	+40 °C	
	Minimum	+7 °C	
Curing Time	3–4 mm / 24 hours		(CQP049-2)
Skin Time	At +23 °C and 50 % r.h.	45 minutes	(CQP019-1)

SYSTEM INFORMATION

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

IMPORTANT

Poor adhesion due to incorrect priming procedure

Incorrectly defined or uncontrolled priming procedures may lead to a variation in Product performance.

Test adhesion on project-specific substrates and agree on procedures with all parties before full project application. For more information contact Sika Technical Services.

Poor adhesion due to inadequate surface preparation

Note: Primers are adhesion promoters. Primers cannot replace proper surface preparation and surface cleaning.

1. Do not use primers for improving poorly prepared or poorly cleaned joint surfaces.

The substrate must be sound, clean, dry and free of contaminants such as dirt, oil, grease, cement laitance, sealant residues and poorly bonded coatings which could affect adhesion of the primer and sealant. The substrate must be of sufficient strength to with stand the stress induced by the sealant during movement.

1. Use techniques such as wire brushing, grinding, grit blasting or other suitable mechanical methods to remove all weak substrate material.
2. Repair all damaged joint edges with suitable Sika repair products.
3. Remove dust, loose and friable material from all surfaces before applying the sealant.

If tested or supported by experience, the Product can be used without primers or activators on many substrates.

Cure 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).

Use the following priming or pre-treatment procedures to ensure optimum adhesion and joint durability, or if the Product is used for high-performance applications such highly stressed joints, or joints exposed to extreme weather.

NON-POROUS SUBSTRATES

Aluminium, anodised aluminium, stainless steel, galvanised steel or glazed tiles.

1. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.

Other metals, such as copper, brass and titanium-zinc

1. Lightly roughen the surface with a fine abrasive pad.

2. Clean the surface.

3. Pretreat the surface with Sika® Aktivator-205 applied with a clean cloth.

4. Wait until the flash-off time is over.

5. Prime the surface with Sika® Primer-3 N applied with a brush.

Powder-coated metals

1. Carry out preliminary trials to verify adhesion. For more information contact Sika Technical Services.

Glass

1. Clean the surface with Sika® Cleaner P or product like isopropanol.

PVC substrates

1. Prime the surface with Sika® Primer-215 applied with a brush.

POROUS SUBSTRATES

Concrete, aerated concrete and cement-based renders, mortars and bricks

1. IMPORTANT: Avoid excessive application of primer to avoid causing puddles. Prime the surface with Sika® Primer-3 N or Sika® Primer-115 applied with a brush.

APPLICATION

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Staining on natural stone substrates due to plasticiser migration

Staining from plasticiser migration may occur when used on cast, reconstituted or natural stone such as granite, marble or limestone substrates.

1. Do not use on natural stone substrates

IMPORTANT

Degradation of sealant due to substrates leaching oil, plasticisers, or solvents

Bitumen, natural rubber or EPDM rubber can leach oils, plasticisers, or solvents that can degrade the sealant and cause the Product to become tacky.

1. Do not use the Product on building materials which leach oils, plasticisers, or solvents.

IMPORTANT

Use on pre-stressed polyacrylate and polycarbonate

The substrate may suffer from environmental stress cracking or surface crazing.

1. Do not use on pre-stressed polyacrylate and polycarbonate substrates.

IMPORTANT

Degradation of sealant due to chemical attack

1. Do not use the Product to seal joints in and around swimming pools. The product has been tested in contact with dilute chlorine solutions to ensure decontamination procedures such as ANSI method 3 clause 4.3.3 disinfection.

Material failure due to insufficient air humidity

Air humidity is required for the Product to cure.

1. Do not use the Product in a totally confined space where this is poor air flow.

Delayed skin formation and curing time due to changing ambient conditions

Note: Changing ambient conditions can affect product performance. Skin formation and curing time can be significantly delayed by low humidity, low temperature and large joint dimensions.

1. Apply masking tape where neat or exact joint lines are required.
2. After the required substrate preparation, insert a backing rod to the required depth.
3. Prime the joint surfaces as recommended in sub strate preparation. Note Avoid excessive application of the primer.
4. Open the seal on the top of the cartridge or open the end of the foil pack.
5. Fit the nozzle and cut it to the desired bead size.
6. Insert the Product into the application gun.
7. Apply the Product into the joint. Note Avoid air entrapment. Make sure that the Product comes into full contact with the adhesion area of the joint.
8. IMPORTANT Do not use tooling products containing solvents. As soon as possible after application, tool the Product firmly against the joint sides to ensure adequate adhesion and a smooth finish. Use a com patible tooling agent such as Sika® Tooling Agent N to smooth the joint surface.
9. Remove the masking tape within the skin formation time of the Product.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 or Sika® Cleaning Wipes-100. Once cured, hardened material can only be removed mechanically.

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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