TBP Converting, Inc.
Sikaflex-511 PDS

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BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-511

Textured, isocyanate free, low modulus sealant

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		Silane Terminated Polymer
Color (CQP001-1)		White, aluminium grey, dark bronze, tan, anodized aluminum, stone, off-white, medium bronze, black, limestone, special bronze
Cure mechanism		Moisture-curing
Density (uncured)		1.44 kg/l
Non-sag properties		Very good
Application temperature	Ambient	5 – 40 °C (41 – 104 °F)
Skin time (CQP019-1)		70 minutes [A]
Curing speed (CQP049-1)		See diagram 1
Shore A hardness (CQP023-1 / ISO 48-4)		20
Tensile strength (ASTM D412)		0.7 MPa (100 psi)
Elongation at break (ASTM D412)		300 %
Tear propagation resistance (CQP045-1 / ISO 34)		6 N/mm (35 pli)
Service temperature (CQP513-1)		-40 – 77 °C (-40 – 170 °F)
Shelf life (CQP016-1)		12 months [B]

CQP = Corporate Quality Procedure

[A] 23 °C (73 °F) / 50% r.h.

[B] stored below 25 °C (77 °F)

DESCRIPTION

Sikaflex®-511 is a 1-component, high movement Silane Terminated Polymer (STP) textured sealant that cures on exposure to atmospheric humidity. It is well suited for applications that require both paintability and adhesion to non-porous substrates.

PRODUCT BENEFITS

- Meets the requirements of ASTM C920 Type S, Grade NS, Class 50, Use M (w/ Sika® Primer-210), A, O-Vinyl
- Non-staining in acc. with ASTM C1248
- Meets the requirements of AAMA 808.3
- Good weathering resistance
- Designed for porous and non-porous substrates
- Textured appearance blends well with rough or stucco type surfaces
- Isocyanate free
- Overpaintable with most paints

AREAS OF APPLICATION

Sikaflex®-511 can be used for joints or gaps connecting dissimilar substrates such as vinyl to concrete or aluminum to EIFS.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-511 on materials prone to stress cracking. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

Sikaflex®-511 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 1).

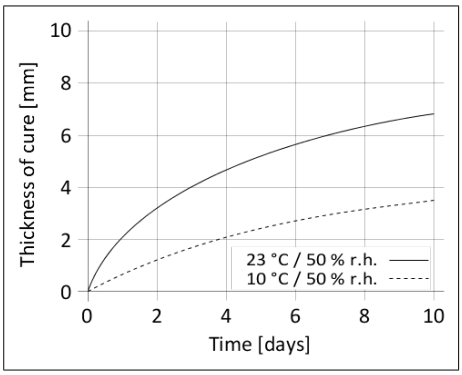

Diagram 1: Curing speed of Sikaflex®-511

METHOD OF APPLICATION

Surface Preparation

Surfaces must be clean, dry and free from grease, oil, dust and contaminants.

Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. Suggestions for surface preparation may be found on the current edition of the appropriate Sika® Pre-Treatment Chart. Consider that these suggestions are based on experience and have in any case to be verified by tests on original substrates.

Application

Sikaflex®-511 can be processed between 5 °C and 40 °C (41 °F and 104 °F), climate and product, but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and process material is between 15 °C and 25 °C (59 °F and 77 °F).

Sikaflex®-511 can be processed with manual, pneumatic or electric driven piston guns.

Tooling and finishing

Tooling and finishing must be carried out within the skin time of the product. It is recommended using Sika® Tooling Agent N. Other finishing agents must be tested for suitability and compatibility prior the use.

Removal

Uncured Sikaflex®-511 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin have to be washed immediately using hand wipes or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

Overpainting

Sikaflex®-511 can be best painted within the skin formation time. If painting process takes place after the sealant has built a skin, adhesion could be improved by treating the joint surface with Sika® Aktivator-100 or Sika® Aktivator-205 prior to paint process. If the paint requires a baking process (> 80 °C (176 °F)), best performance is achieved by allowing the sealant to fully cure first. All paints have to be tested by carrying preliminary trials under manufacturing conditions.

The elasticity of paints is usually lower than that of sealants. This could lead to cracking of the paint in the joint area.

Application Limits

- Maximum depth of selant must not exceed 13 mm (1/2 in.); minmum depth is 6 mm (1/4 in.).
- Not intended for immersion, structural glazing applications, or horizontal vehicular traffic.
- Do not apply to damp or wet substrates.
- Allow treated wood to age six months before application.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets
- Sika Pre-treatment Chart
  For Silane Terminated Polymers
- General Guideline
  Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Cartridge	295 ml
Unipack	600 ml

BASIS OF PRODUCT DATA

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

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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