BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® CR 171

(formerly MSeal CR 171)

Two-part, pourable, chemical-resistant, polysulphide-based joint sealant

DESCRIPTION

Sikaflex® CR 171 is a two-part, pourable, chemical-resistant, polysulphide-based joint sealant with German technical approval (AbZ). It is used in facilities for the storage, handling and filling of substances hazardous to water.

USES

Sikaflex® CR 171 is used for sealing horizontal floor joints between foot access and traffic areas (inclination up to 2 %), especially where an effective seal against potentially water-polluting substances is needed, for example in refueling areas at filling stations and for other sealed areas.

FEATURES

- Easy application
- Very good movement capability: ±30 % (ISO 9047)
- Chlorinated paraffin-free formulation
- Approved for use in storage, handling, and filling facilities for substances hazardous to water by DIBt (Deutsches Institut für Bautechnik)
- Very good resistance to hydrocarbons like fuels, oils and many other chemicals

CERTIFICATES AND TEST REPORTS

- CE marking and declaration of performance based on EN 14188-2:2004 Joint fillers and sealants — Part 2: Specifications for cold applied sealants
- Joint sealing system, Sikaflex® CR 171, DIBt, Approval No. Z-74.6-168

PRODUCT INFORMATION

Composition	Polysulfide
Packaging	4L, 10 L and 20 L kits.
Shelf life	9 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 +25 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.
Density	1.65 kg/L

TECHNICAL INFORMATION

Shore A hardness	After 25 days	28	(EN ISO 868)
Secant tensile modulus	Cured 28 days at +23 °C and 50% R.H. Measured at 100% elongation at +23 °C	0.25 N/mm²	(ISO 8339)
	Cured 28 days at +23 °C and 50% R.H. Measured at 100% elongation at -20 °C	0.35 N/mm²	
Shrinkage	Loss of volume	< 5 %	(EN ISO 10563)
Elastic recovery	80 %		(EN ISO 7389)
Movement capability	± 25 %		(EN ISO 9047)

Chemical resistance

Approved liquids according to DIBt approval	Stress level	Trafficable
Gasoline for spark ignition engines according to EN 228, with a maximum 5 % by volume of bio-alcohol according to EN 15376	SFH 2	X
Gasoline for spark ignition engines according to EN 228, with a maximum 20 % by volume of bio-alcohol according to Directive 2009/28/EC	SFH 2	X
Aviation gasoline	SFH 2	X
Fuel EL, unused combustion engine oil, unused motor vehicle gear oil, mixture of saturated and aromatic hydrocarbons with an aromatic content < 20 wt.-% and a flash point > 60 °C	SFH 2	X
Diesel fuel according to EN 590, with a maximum of 20 % by volume of bio-diesel fuel according to EN 14214	SFH 2	X
All hydrocarbons as well as mixtures containing benzene with max. 5 % by volume except fuels (including Gr. 2, 3, 4b and 4c, excluding Gr. 1, 1a, 3b and 4a)	SFH 1	walkable only
Benzene and mixtures containing benzene	SFH 1	walkable only
Crude oils	SFH 2	X
Used internal combustion engine oils and used vehicle gear oils with a point of ignition	SFH 2	X

of > 55 °C		
Monovalent and polyvalent alcohol (up to a maximum of 48 % by volume of methanol and ethanol), glycols, polyglycols and their monoethers as well as their aqueous mixtures	SFH 2	X
All alcohols and glycol ethers as well as their aqueous mixtures	SFH 2	X
Monovalent and polyvalent alcohol ≥ C2 (up to a maximum of 48 % by volume of ethanol) as well as their aqueous mixtures	SFH 2	X
Ethanol including ethanol according to DIN EN 15376 (independent of its manufacturing process) as well as its aqueous mixtures	SFH 2	X
Bio diesel fuel according to EN 14214	SFH 2	X
Aqueous solutions of aliphatic aldehyde up to 40 %	SFH 2	X
Aqueous solutions of organic acids (carboxylic) up to 10 % as well as their salts in aqueous solutions	SFH 2	X
Inorganic acids (mineral acids) up to 20 % as well as acidic, hydrolysed inorganic salts in aqueous solution (pH < 6), except for hydrofluoric acids and acids with an oxidizing effect and their salts	SFH 1	walkable only
Inorganic lye as well as alkaline hydrolysing inorganic salts in aqueous solution (pH > 8), except ammonia solution and oxidising salt solutions (e.g. hypochlorite)	SFH 2	X
Aqueous solutions of inorganic non-oxidizing salts with a pH value between 6 and 8	SFH 2	X
Amines as well as their salts (in aqueous solutions)	SFH 2	X
Single liquid: Skydrol® LD 4	SFH 2	X
Single liquid: Shell Di-	SFH 2	X

	ala®		
	Single liquid: AdBlue® (aqueous urea solution 35 %)	SF3 / H2	X

Legend

(S): storage	(H): handling	(F): filling
(1): stress level low	(2): stress level medium	(3): stress level high

For additional information about chemical resistance, refer to the following document: Chemical resistance chart Sikaflex® CR 170 and Sikaflex® CR 171

Service temperature	Maximum	+60 °C
	Minimum	-20 °C
Elongation at break	750 %	(ISO 37)

APPLICATION INFORMATION

Mixing ratio	Part A : Part B	100 : 9 by weight

Consumption

Joint width	Joint depth	Consumption
10 mm	10 mm	100 ml/m
15 mm	12–15 mm	180–225 ml/m
20 mm	16–20 mm	320–400 ml/m
25 mm	20–25 mm	500–625 ml/m
30 mm	24–30 mm	720–900 ml/m
35 mm	28–35 mm	980–1225 ml/m
40 mm	32–40 mm	1280–1600 ml/m

Backing material	Use closed cell, polyethylene foam backing rod.	
Sag flow	Self-leveling, can be used on slopes ≤ 3%	
Material temperature	Maximum	+40 °C
	Minimum	+5 °C
Ambient air temperature	Maximum	+40 °C
	Minimum	+5 °C
Substrate temperature	Maximum	+40 °C
	Minimum	+5 °C
Open Time	60–120 min	
Curing time	24–48 h	
Tack free time	12–14 h	(EN 14187-2)

BASIS OF PRODUCT DATA

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

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 QUALITY

Substrate must be sound, clean and free of all contaminants such as dirt, oil, grease, polish, coatings, water-soluble and water-resistant adhesives, varnish, laitance, surface treatments and loose friable materials.

SUBSTRATE PREPARATION

The Product must always be applied to primed surfaces.

- **Sika® Primer-117 MS**: for porous substrates such as concrete and cementitious mortars
- **Sika® Primer-107**: for non-porous substrates and stainless steel
- **Sika® Primer-127**: for mild steel substrates

For further information, refer to the corresponding technical data sheet.
Note: Primers only help to improve the adhesion. They are not a substitute for correct substrate preparation nor do they improve the strength of the substrate significantly.

1. Allow primer to flash off before sealant application.
2. Apply the Product within the open time of the primer. Note Do not prime or puncture the backer-rod.

MIXING

Preconditions
During mixing, the temperature of the two parts should be between 15 °C and 25 °C.

1. Add part B to part A using a trowel.
2. Mix the two components during at least 3 minutes with a slow stirrer at about 300 rpm. The material at the bottom and edges of the container must also be mixed.

A homogeneous substance without any sludge is produced.

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.

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 substrate preparation. Note Avoid excessive application of the primer.
4. Following mixing, fill the material into a manual spray gun or insert the container into a pressure unit with hose and nozzle.
5. 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.
6. 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 compatible tooling agent such as Sika® Tooling Agent N to smooth the joint surface.
7. Remove the masking tape within the skin formation time of the Product.

Colour variation
Note: Colour variation may occur especially with white or other light colour shades. This effect is purely aesthetic and does not adversely influence the technical performance or durability of the Product.
Ambient temperature
Note: In colder temperatures, reactions happen slower, leading to longer open and curing times.

In warmer temperatures, reactions occur faster, resulting in shorter open and curing times.

To guarantee complete curing, maintain material and structure temperatures above the minimum limit at any location and any point during the curing process.

CLEANING OF EQUIPMENT

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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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