

Technical Data Sheet
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Sikaflex® Pro-3 WF

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1-Component Elastic Polyurethane Sealant

Description	Sikaflex® PRO-3 WF is a flexible, 1- component sealant based on polyurethane with good mechanical resistance and a permissible movement capacity of 20%. Sikaflex® PRO-3 WF reacts with air humidity and turns into an elastic sealant																																				
Uses	Sikaflex® PRO-3 WF is versatile and therefore suitable for various fields of use. Design of joints must be matched to the individual conditions of the project. <ul style="list-style-type: none"> ■ Floor joints ■ Floor joints in areas exposed to chemicals ■ Joints in waste water and sewage treatment plants with domestic sewage ■ Joints in tunnel construction 																																				
Properties	<ul style="list-style-type: none"> ■ Flexible ■ Bubble-free curing ■ Good mechanical and chemical resistance ■ Excellent adhesion to most construction materials 																																				
Packages	Sausages á 600 ml (1 carton = 20 sausages)																																				
Colour Shades	Concrete grey Other color shades upon request , minimum quantity order will be applied																																				
Shelf life	In original sealed containers, in dry and cool environment stored at temperatures between +10° C and +25° C: 12 months. Protect from direct sun radiation.																																				
Principles of Sealing/ preparation of joints	Sikaflex® PRO-3 WF is suitable for sealing joints between building elements. As an additional protection against water pressure an extra backfilling of the joint space behind the sealant – e.g. with expanded polystyrene – is strongly recommended. The sealing function (interior and exterior) may be increased by waterbars embedded into the concrete of construction.																																				
Preparation	<p>For a temperature differential of 60°C we recommend:</p> <table border="1"> <tr> <td><u>Joint distance in m</u></td> <td><u>2,0</u></td> <td><u>4,0</u></td> <td><u>6,0</u></td> <td><u>8,0</u></td> <td><u>10,0</u></td> </tr> <tr> <td>minimum joint width in mm</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> </tr> <tr> <td>thickness of sealant in mm</td> <td>10</td> <td>10</td> <td>15</td> <td>20</td> <td>20</td> </tr> </table> <p>Relevant is the joint width during application of the sealant, guide temperature +10°C</p> <p>For exterior areas (temperature differential of 80° C) we recommend:</p> <table border="1"> <tr> <td><u>Joint distance in m</u></td> <td><u>2,0</u></td> <td><u>3,0</u></td> <td><u>4,0</u></td> <td><u>5,0</u></td> <td><u>6,0</u></td> </tr> <tr> <td>minimum joint width in mm</td> <td>12</td> <td>15</td> <td>18</td> <td>20</td> <td>25</td> </tr> <tr> <td>thickness of sealant in mm</td> <td>10</td> <td>12</td> <td>15</td> <td>18</td> <td>20</td> </tr> </table>	<u>Joint distance in m</u>	<u>2,0</u>	<u>4,0</u>	<u>6,0</u>	<u>8,0</u>	<u>10,0</u>	minimum joint width in mm	10	15	20	25	30	thickness of sealant in mm	10	10	15	20	20	<u>Joint distance in m</u>	<u>2,0</u>	<u>3,0</u>	<u>4,0</u>	<u>5,0</u>	<u>6,0</u>	minimum joint width in mm	12	15	18	20	25	thickness of sealant in mm	10	12	15	18	20
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Technical Data

Characteristic values		Remarks
Chemical basis:	polyurethane, 1-pack, Moisture curing	Does not contain PCB containing plasticizers
Specific gravity:	approx. 1,3 gr/ml	DIN 53 479 B
Sag resistance:	excellent	DIN EN 27 390-St- U20
Final Curing	approx. 2 mm/ 24 hours	Standard climate according
Time for forming of skin:	approx.1-2 hours	To DIN 50 014- 23/50-2
Change of volume:	approx.-6%	DIN 52 451
Application temperature:	+5°C - +40°C	Temperature of construction element up to approx. 8 h after application
Service temperature:	-40°C - +80°C	
Tensile strength at:	+23°C -+10°C - 20°C	DIN EN 28 339-B
25% elongation	0.3 N/mm ² 0.4 N/mm ² 0,5 N/mm ²	
50% elongation	0.4 N/mm ² 0.7 N/mm ² 0,7 N/mm ²	
80% elongation	0.5 N/mm ² 0.9 N/mm ² 0,9 N/mm ²	
100% elongation	0.6 N/mm ² 1.0 N/mm ² 1,2 N/mm ²	
Recovery	approx. 80%	DIN EN 27 389
Movement capacity:	20%	Related to initial width of joint
Propagation strength:	approx. 8 N/mm	DIN 53 515
Resistance to Water pressure:	3 bar (without additional protection)	According to the building and testing rules (DIBt)
Shore-hardness A:	approx.35	In conformity with DIN 53 505, after preparation as per DIN 52 455 part 2

Chemical resistance

Sikaflex® PRO-3 WF was tested by the polymer Institute according to the construction and testing rules of DIBt(German Institute for construction) for Sikafloor bund area system as well as for sewers and sewage treatment plant as per DIN 52 452, part 2.

Testing Group	Name	Time Testing	Classification
1	3- and 4-star petrol	24 h/ 72 h	(+) / (+)
3	Fuel oil EL, diesel oil as well as unused lubricating oils	24 h/ 72 h	+ / +
4a*	Benzol and benzol containing mixtures	24 h/ 72 h	
5	Alcohols, glycoether	24 h/ 72 h	(+) / (+)
6	Aliphatic halogenated-hydrocarbons	24 h/ 72 h	(+) / -
7	Aliphatic ester and ketones	24 h/ 72 h	(+) / -
8	Aliphatic aldehydes	24 h/ 72 h	+ / -
9	Watery solution of organic acids up to 10%	24 h/ 72 h	+ / +
10	Organic acids (carboxylic acid)except formic acid	24 h/ 72 h	+ / +
11	Anorganic lyes	24 h/ 72 h	+ / +
12	Anorganic solutions, non-oxidizing salts	24 h/ 72 h	+ / +
13	Amines	24 h/ 72 h	- / -
14.1	Watery solutions of organic tensides	24 h/ 72 h	+ / +
14.2	Watery solutions of organic tensides	24 h/ 72 h	+ / +

* Testing Group 4a includes testing group 2-4b

+ resistance (+) limited resistance (swelling possible) - not resistant

In case of chemical exposure the resistance of sealant is limited. Joints exposed to chemical are service joints and may have to be refurbished after exposure.

Backfilling	<p>For Sikaflex® PRO-3 WF use only closed cell, sealant compatible foam backer rods (e.g. high-resilience polyethylene foam rod, Sika Rundschnur PE). Using the backer rod the depth of the joint can be limited, radius should be approx. 20% bigger than the width of the joint. Use only blunt implements to avoid damage of the surface and penetration of gases into the sealant.</p> <p>As an additional protection against water pressure an extra backfilling of the joint space behind the backfilling material – e.g. with expanded polystyrene, is strongly recommended. The sealing function (interior and exterior) may be increased by concrete encased waterstops</p>
Preparation of Bond Areas	<p>The bond areas must be of sufficient strength, dense, dry and free of fat and dust. In combination with Sika-Primer 3 mat damp concrete is acceptable. Cleaning of joint arises must ensure that all friable particles and contaminations are removed. Concrete should normally be prepared with an angle grinder. Absorbent substrates do need a dry cleaning (by broom), non absorbent substrates a wet cleaning (dedusting/ removal of fat), metal angle profiles e.g. Sika Cleaner 5. The solvent must evaporate completely prior to sealing the joints.</p> <p>Spallings have to be patched up with epoxy mortar (e.g. Sikadur 41). Respect recommended curing time until sealing of the joints.</p>
Primer	<p>Sika-Primer 3: for porous, absorbent, mineral construction materials, (dry or mat-damp) e.g. concrete, brick. Sika-Primer 21: for synthetic materials, lacquers, coatings. Sika-Primer 35: on metals, e.g. aluminum, stainless steel etc. Unprotected steel is not suitable as a contact surface. In case of coated steel, coatings and plastics, compatibility must be tested.</p> <p>Corrosion protection coating on steel permanently exposed to water: Icosit K 24 thick: on unprotected steel.</p>
Application	<p>Sikaflex® PRO-3 WF should be caulked into the joints in such a way, that no air is entrapped.</p> <p>Substrate temperatures above +40°C may lead to damages in an early stage. Therefore – in case of increased heat – temperature on the surface of the adjacent building components must be measured.</p> <p>Detergents and soap are not recommended, they may reduce the chemical resistance and could lead to damages in a later stage.</p>
Remarks	<p>At approx. 20 °C full chemical and mechanical resistance is achieved after 14 days. Chemical exposure and joint movements more than 10% are not permitted during curing.</p> <p>Over-painting of the joint is not permitted as a rule.</p> <p>Sikaflex® PRO-3 WF is not compatible with bitumen and fluxoils. Direct and indirect contact with bitumen is not permitted.</p> <p>Slight color deviation may occur by environmental influences (chemicals, high temperatures, UV-radiation). This does not influence the properties or functionality of the sealant.</p>
Precautionary measure	<p>Sikaflex® PRO-3 WF contains Isocyanate. Observe directions given on label. Keep cartridges and bags tightly closed in dry rooms. In a not fully cured state of the product contaminates water and should not get into drains, water and ground.</p> <p>First aid: Eye contact: Rinse with plenty of water (approx. 10-15 min) and consult a doctor.</p> <p>In case of skin contact : Rinse with plenty of water and soap. Use barrier cream.</p> <p>Further details are contained in our instructions “Health protection and prevention of accidents”.</p>

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 product 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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