

Mycoflex 450

Polyurethane-based joint sealant

Product Properties

- Two-component, carbo-modified polyurethane
- Good chemical resistance (see table of resistances), especially against oils and fuels
- Total elastic deformation: 20 %
- Mycoflex 450 SP = stable, can be applied by spraying and spreading
- Mycoflex 450 VE = pourable, self-levelling

Areas of Application

- Elastic sealing of joints in bridge constructions, civil engineering and hydraulic engineering
- Connecting- and movement-joints in sewage plants, sewers, oil sumps, etc.
- Floor joints in industrial buildings, workshops and multi-storey parking; elastic filling of pipe sockets

Application

Constructional Prerequisites

Joint-design and dimension in compliance with DIN 18540. For floor-joints please also refer to the IVD-data sheet No. 1 "Sealing of floor-joints with elastic joint-sealing compounds".

Before the primer can be applied, the joint-sides have to be dry (residual moisture < 4 %), load-bearing, free from all contaminants (e.g. oils, greases, production residues, etc.), as well as free from dust and cement laitance.

The permitted total deformation and the prospective mechanical loading must be considered by the design of the joint width.

Primer and Backfilling

The priming of joint-sides in exposed areas is done with Mycoflex 251. Mycoflex 4100 TS is used if requirements according to SS-S 200 E must be observed. The primer must penetrate the joint-sides completely over the entire area.

The closed-cell polyethylene round-profile Mycoflex-Jointfiller PE is inserted as backfiller. The joint depth must be limited to approx. 50 % of the width, however, it must be at least 10 mm (see DIN 18540). If a backfiller cannot be inserted, a three-side-adhesion must be prevented, e.g. by inserting a polyethylene-strip.

The interval between priming and application of Mycoflex 250 VE/SP is at least 1 hour and not more than 6 hours at 20 °C.

Mixing

The base- and hardener-component must be mixed together thoroughly and homogeneously. Only mechanical mixing with an electric hand-drill (200 - 400 rpm) and attached special mixer is permitted. To avoid mixing mistakes we advise re-potting.

Application

Mycoflex 450 VE is casted directly from the original packaging or from casting cups. Mycoflex 450 SP can be applied with spatulas, joint trowels, hand- or pneumatic-guns. If applied by pneumatic gun, a working pressure of 4 - 6 bar is required. The sealing compound must be applied void- and bubble-free. The pot life (at 23 °C and 50 % rel. humidity) is approx. 70 - 80 minutes. Material which is already curing must not be used anymore. Smoothing may only be done with non-film-forming smoothing agents.

Safety Advice

When applying the primer Mycoflex 251, as well as Mycoflex 450 VE/SP, please take note of safety information and advice given on the packaging labels.

Technical Data for Mycoflex 450

Characteristic	Unit	Value	Comments
Mixing ratio SP (VE)	p. b. w.	100 : 8.5 (7 : 1)	base : hardener
Density SP (VE)	g/cm ³	approx. 1.4 (1.4)	-
Consistency SP (VE)		stable, applicable by spraying and spreading (pourable, self-levelling)	at 23 °C and 50 % relative humidity
Application time	minutes	70 - 80	at 23 °C and 50 % relative humidity
Curing time	hours	24	trafficable
	days	3	mechanically loadable
	days	7	fully chemical-resistant
Consistency after curing		elastic	
Stability SP (VE)		stable, no flowing in vertical areas (self-levelling)	
Shore-A-Hardness SP (VE)		approx. 25 (30)	
Maximum total deformation	%	20	
Tension SP (VE)	N/mm ²	0.44 (0.47)	at 20 °C
Application conditions	°C	≥ 5; ≤ 40	air, material and substrate temperature
	%	≤ 85	relative humidity

Product Characteristics for Mycoflex 450

Colour	black
Delivery	SP: Box à 4 x 2.5 l packs; VE: 3.3 l and 6.6 l packs
Primer	Mycoflex 251 (Box à 3 x 1 l) One-component, polyurethane-based reactive polymer for porous, absorbent, as well as smooth, non-absorbent substrates. Not suitable for use on asphalt.
Storage	Can be stored in cool (below 20 °C) and dry conditions for at least one year in original unopened packs. Protect from frost!
Disposal	Packs must be emptied completely.

Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets and please take notice of the chapter "Safety Measures for Handling Coating Materials and Reactive Resins". GISCODE: PU40

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 07/10. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.