Product Data Sheet
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Construction

SikaSwell® P-2003 M Profile

Swellable Joint Sealing Profile

Product Description

Sealing profiles which swell in contact with water and seawater.
Suitable for use in hot and tropical climates.

Uses

SikaSwell® P-2003 M is used to provide a seal against the risk of water infiltration in applications such as:

- Construction joints
- Pipe and steel work penetrations through walls and floor slabs
- Construction joints in precast concrete
- Construction joints in tunnel segments
- Construction joints in cable ducts, etc.
- Around all types of penetrations through concrete

Characteristics / Advantages

SikaSwell® P-2003 M provides the user with the following benefits:

- Easy to apply
- Can be applied on different substrates
- With protective coating to avoid premature swelling
- Highly economical
- Swells in contact with water and seawater
- Water and saltwater (seawater) resistant
- No hardening time required
- No welding required
- Adaptable to fit many different detailing tasks

Product Data

Appearance / Colours

Mono Types:
Plain section swelling profile
Highly swellable yellow profile

Packaging

140 metre rolls packed in cardboard boxes.

Types

Mono Type	Width (mm)	Thickness (mm)	Cross section (schematic view)	Description	m / box
P-2003 M	20	3		Highly swellable profile	7 x 20 = 140

Storage Conditions / Shelf Life

48 months from date of production if stored in unopened, undamaged and sealed original packaging in dry conditions at temperatures between +5°C and +35°C. Protect from UV light.

Technical Data

Chemical Base	Yellow part: Combination of hydrophilic swelling resins and rubber
Change of Volume (DIN 53521)	7 days in salt water: ≥ 150% 7 days in tap water: ≥ 300%
Swelling Pressure	≥ 15 bar after 7 days stored in tap water

Mechanical / Physical Properties

Tensile Strength (DIN 53504)	Approximately 2.5 N/mm^2
Shore A Hardness (DIN 53505)	75 +/- 5
Elongation at Break (DIN 53504)	Approximately 250%

Application Details

Substrate Quality	The substrate must be sound, clean, dry and free from all surface contaminants.
Substrate Preparation	All loose particles, release agents, laitance, paint, rust and other poorly adhering materials must be removed by suitable hand or mechanical preparation. Surfaces which are excessively rough tend to leak later on. We recommend smoothing of freshly placed concrete with a batten where the sealing profile is to be placed.
Substrate Temperature	Dependent on the adhesive which has been selected. Please consult the corresponding product data sheet.
Ambient Temperature	Dependent on the adhesive which has been selected. Please consult the corresponding product data sheet.
Substrate Humidity	The substrate may be dry or “matt damp”.

Application Instructions

Application Method / Tools

Fixing methods:
SikaSwell® P-2003 M Profiles can be fixed with SikaSwell® S-2 and/or Sika® Trocal Adhesive C-705 depending on substrate type and condition.

Smooth, flat, dry substrates such as PVC, metals, precast concrete elements etc.:

- With Sika® Trocal Adhesive C-705
  The adhesive is applied at the width of the profiles onto the substrate as well as to one side of the profiles with a small brush.
  After a drying time of approximately 15 minutes the **SikaSwell® P-2003 M Profiles** are placed and pressed well onto the primed substrate.
- With SikaSwell® S-2
  Apply SikaSwell® S-2 in a narrow bed (size of triangular section ~ 5 mm) to the substrate. The profiles must be placed within max. 30 minutes onto and pressed well into the still fresh SikaSwell® S-2 sealant until small quantities of SikaSwell® S-2 ooze out from both side of the profiles. Allow SikaSwell® S-2 to harden for 2-3 hours before placing concrete. Please consult the product data sheet of SikaSwell® S-2.

Rough, uneven, dry or “matt damp” substrates (e.g. scabbled concrete):

- With SikaSwell® S-2
  SikaSwell® S-2 must be extruded in sufficient quantity to level the roughness of the substrate.
  Apply SikaSwell® S-2 in a narrow bed (size of triangular section ~ 5 mm) to the substrate. The profiles must be placed within max. 30 minutes onto and pressed well into the still fresh SikaSwell® S-2 sealant until small quantities of SikaSwell® S-2 ooze out from both side of the profiles. Allow SikaSwell® S-2 to harden for 2-3 hours before placing concrete. Please consult the product data sheet of SikaSwell® S-2.

Construction

General:
- It is important that a full and continuous contact between the **SikaSwell® P-2003 M Profiles** and the substrate is achieved.
- Place **SikaSwell® P-2003 M Profiles** in the centre of the concrete section.
- Minimum cover to profiles on both sides must be 10 cm (reinforced concrete) or 15 cm (non reinforced concrete).
- Connections and corners must be butt jointed and fixed.
- During concreting, compact well around **SikaSwell® P-2003 M Profiles** to provide a dense concrete without any honeycombs or voids.

Cleaning of Tools

Clean all tools and application equipment with Sika® Colma-Cleaner immediately after use. Hardened / cured material (adhesive) can only be mechanically removed.

Notes on Application / Limitations

- **SikaSwell® P-2003 M Profiles** expand in contact with water and seawater. This does not happen immediately, but slowly after several hours. Nevertheless it is advisable not to leave **SikaSwell® P-2003 M Profiles** any length of time in the open air or exposed to rain water (max. 24 hours as long as water can drain away).
- Do not use **SikaSwell® P-2003 M Profiles** for movement joints!
- If the water level suddenly increases, the watertightness of joints will only be achieved when **SikaSwell® P-2003 M Profiles** have swollen.
- In a totally dry state **SikaSwell® P-2003 M Profiles** shrink to their original dimensions, but expand again in contact with water.
- Do not use **SikaSwell® P-2003 M Profiles** for sealing against water pressures higher than 2 bar because of the limited sealing distance.
- If **SikaSwell® P-2003 M Profiles** are to be fixed around small diameter pipes use additional mechanical fixing with tie wire or a sleeve.

Notes

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.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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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