



Roka Swell

One Part Polyurethane Based Hydrophilic Sealant

Roka Swell is a one component polyurethane based hydrophilic sealant that swells in contact with water to seal all types of construction joints and penetrations in concrete structures. It is used to adhere Roka Swell Bar profile to the structure and is suitable for hot and tropical climates.

Uses & Advantages:

- Economical.
- Easy to apply.
- Optimised expansion rate.
- Good adhesion to different substrates.
- Permanently water resistant.
- Versatile solution for joints.

Fields of Application:

Roka Swell is used in sealing of

- Construction joints.
- Construction joints in cable ducts.
- Around all types of penetrations and connection joints.



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- Pipe and steel work penetrations through walls and floor slabs.

Technical Information:

Chemical Base	Polyurethane
Density	1.24 kg/l
Service Temperature	10 to 50 °C
Substrate Moisture Content	Matt Dry
Substrate Temperature	5 to 35 °C
Ambient Air Temperature	5°C to 35°C
Swelling Pressure	Depends on the stiffness of the surrounding concrete structure, which is influenced by the concrete quality, voids, gaps and other weaknesses
Shore A Hardness	30 – 50 unswollen
Shelf life	9 months
Storage	Keep in d in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C to + 25°C



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Surface Preparation:

Before the application, it is important to ensure that the surface is sound, clean, matt dry and free from any foreign contaminants that might hinder proper adhesion. Rough concrete surfaces are prone to leaking. If the surface roughness cannot be smoothed with Roka Swell, the surface must be treated with appropriate levelling mortar like Roka Mortar 550 or other recommended surface treatment mortars before Roka Swell and Sika Swell Bar profile is applied.

Freshly cast concrete must be smoothed with a batten before the application of Roka Swell.

Application:

Place Roka Swell in the center of the concrete structure leaving a minimum cover of 75 mm and 150 mm on both sides for reinforced and unreinforced concrete respectively.

Adhesive with Roka Swell Bar Profile:

Apply Roka Swell adhesive in a narrow bed onto the prepared substrate. Press Roka Swell Bar profile firmly into the adhesive within 30 minutes. Ensure full and continuous contact between Roka Swell and both Roka Swell Bar and the substrate is achieved.

Allow Roka Swell to harden for 12 hours before placing the concrete. For pouring height greater than 500 mm, let Roka Swell harden for at least 24 hours. Protect the application against



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water until the concrete is placed. During placement of concrete, compact well around Roka Swell to achieve dense concrete without any honeycombing and voids.

Stand-alone Sealant:

Using a triangular nozzle, apply Roka Swell onto the prepared substrate according to the table below:

System Thickness	Size of Triangular Section
<200 mm	12mm
200 – 300 mm	15mm
300 – 500 mm	20mm

Ensure full and continuous contact between Roka Swell and the substrate is achieved. Allow Roka Swell to harden for 12 hours before placing the concrete. For pouring height greater than 500 mm, let Roka Swell harden for at least 24 hours. Protect the application against water until the concrete is placed. During placement of concrete, compact well around Roka Swell to achieve dense concrete without any honeycombing and voids.



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Remarks:

- Roka Swell is not recommended for movement joints.
- Roka Swell expands in contact with water but not instantaneously (takes a few hours).
- Roka Swell is recommended for sealing water pressure up to 2 bars. For higher pressures, contact Roka Chem Solutions team for assistance.

Important Note:

The information provided in this data sheet is based on ongoing development efforts and extensive field experience. While we strive to ensure the accuracy and reliability of the information, we cannot assume responsibility for any work performed using our materials, as we have no control over application methods, site conditions, and other factors. Due to ongoing research and development in our laboratories, we recommend that customers verify that this data sheet has not been replaced by a more recent publication.

All products are sold under our standard conditions of sale, which are available upon request. Any field services offered do not imply supervisory responsibility. For further information, please contact your local representative of Roka Chem Solutions.



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