



Manual

Swellseal mastic

HYDRO-SWELLING MASTIC

1. DESCRIPTION

Swellseal® Mastic is a one-component, polyurethane-based, solvent free, hydro swelling mastic, supplied in cartridges and aluminum sausages, for the sealing of construction joints and around pipe penetrations.

Swellseal Mastic cures and swells in the presence of moisture. Curing time depends on temperature and humidity conditions, i.e. curing time will reduce if RH and Celsius degrees are higher.

Swellseal Mastic will become firm in 24-36 hours. Performance is not affected by the curing time.

2. FIELD OF APPLICATION

Swellseal Mastic is used for:

- Sealing rough and smooth construction joints of in-situ cast concrete.
- Sealing joints between pre-cast segments (e.g. manholes, box culverts, cable ducts and pipes).
- Sealing around steel H-beams.
- Sealing between rough surfaces (e.g. slurry walls) and concrete slabs.
- Bonding strip sealants to rough surfaces.
- Sealing around bolt spacers and void formers.
- On secant pile walls

3. PROPERTIES

	Value	Norm
Solids	100%	Test DNC
<i>Uncured</i>		
Consistency	Gel / paste	Test DNC
Density (at 20°C)	± 1,45 kg/dm ³	DIN 53504
Slumb in Vertical Application	<5 mm (average 3 mm)	Boeing test
Hand Dry (at 20°C and 60% rel humidity)	12 h	Test DNC
Flash Point	> 130°C	Pensky – Martens methode
<i>Cured (7 days at 25°C, 10 mm thick)</i>		
Elongation at Break	± 625%	DIN 53504
Tensile Strength	± 2,2 N/mm ²	DIN 53504
Resistance to Hydrolic Pressure	Up to 150 meters of water column	Test DNC
Swelling Capacity in Contact with Water	Up to ± 350% of its original dry volume	Test report KUL University

4. APPEARANCE

Pasty during application and rubbery after curing.
Color: white

5. CONSUMPTION

The consumption of Swellseal Mastic per linear meter depends on the quality of the surface of the concrete. With an average thickness of 10 cm, one cartridge is sufficient for 3 meters.

Nozzle diameter	Length (cartridge)	Length (Sausage)
3 mm	20 – 25 m	40 – 50 m
6 mm	8 – 10 m	16 – 20 m
8 mm	4 – 5 m	8 – 10 m
10 mm	Approx. 3 m	Approx. 6 m

6. STORAGE

Minimum 12 months in a dry place at temperatures between 5°C and 30°C.
See shelf life information on the packaging

7. APPLICATION

1. Precautions

- Swellseal Mastic is preferably applied onto a dust-free concrete surface. The surface can be rough or smooth, moist or dry. Installation during heavy rain or in prolonged contact with water results in a premature swelling of the strip, which should be avoided.
- Preferably the mastic should cure for 24 hours before pouring concrete.
- Despite the fact that Swellseal Mastic has a very good adherence to the concrete, care must be taken, as with all products of this type, not to pour the concrete directly on the product to avoid damaging of the applied sealant.

2. Application method

- Break the moisture-proofing aluminium foil on the top of the cartridge and remove the seamer from the bottom.
- Cut the nozzles diagonally at the appropriate position.
- Place the cartridge into caulking gun.