

Swellseal Mastic

Caulk applied one-component, hydro swelling mastic for sealing smooth and rough construction joints and pipe penetrations.



• 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.

• advantages

- Solvent free.
- Swellseal Mastic can be applied to concrete, PVC, HDPE, steel, etc.
- The excellent filling and adhesion properties of the product provide a first line filling of cracks and voids, even on lightly humid, smooth or rough surfaces.
- In contact with water Swellseal Mastic will expand to about 350% of it's original volume.
- Flexible system, which adapts to the irregular surface of the substrate.
- Easy application with standard caulking gun.
- Durable: will exceed the construction's life.
- Has a good all-round chemical resistance^(*) and can resist to petroleum, mineral and vegetable oils and greases.
- Swellseal Mastic is approved for contact with potable water.

• description

- Swellseal Mastic is a one-component, polyurethane based, solvent free, hydroswellable mastic, supplied in cartridges and aluminium 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 C° are higher. Swellseal Mastic will become firm in 24-36 hours. Performance is not affected by the curing time.

• 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.

For 310cc cartridges:

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.

For 600cc sausages:

Put the sausage in the empty tube of the caulking gun and cut 1 cm off the top of the sausage. Close the tube and install the nozzle. Cut the nozzle diagonally at the appropriate position.

- Swellseal Mastic is applied with a caulking gun in an uninterrupted band (minimum 10 mm wide and high), in the middle of the joint or prefab element. Concrete cover should be at least 7 cm on both sides, in order to avoid cracks from the expansion pressure of swelling Swellseal Mastic.

• technical data/properties

Property	Value	Norm
Solids	100%	Test DNC
Uncured		
Consistency	Gel / Paste	Test DNC
Density (at 20°C)	Approx. 1,45 kg/dm ³	DIN 53504
Slump in vertical applications	< 5 mm (average 3 mm)	Boeing test
Handdry (at 20°C and 60% rel. humidity)	12 h	Test DNC
Flash Point	> 130°C	Pensky-Martens method
Cured (7 days at 25°C, 10 mm thick)		
Elongation at break	Approx. 625%	DIN 53504
Tensile strength	Approx. 2,2 N/mm ²	DIN 53504
Resistance to hydrostatic pressure	Up to 150 metres of water column.	Test DNC
Swelling capacity in contact with water	Swells to approx. 350% of its original dry volume	Test report KUL University

• appearance

During application pasty, after curing rubbery.
Colour: white.

• **consumption**

The consumption of Swellseal Mastic per linear metre depends on the quality of the surface of the concrete.

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

• **packaging**

310 ml cartridges	600 ml sausages
12 per cardboard box	12 per cardboard box
1 pallet = 75 cardboard boxes	1 pallet = 40 cardboard boxes
Weight per cartridge 0,55 kg gross 0,50 kg net	Weight per sausage 0,99 kg gross 0,90 kg net

• **storage**

Minimum 12 months in a dry place at temperatures between 5°C and 30°C.

See shelf life information on the packaging.

• **certificates/approvals**

WRAS - Drinking Water approval - UK.

• **accessories**

To be ordered separately:

- Skeleton caulking gun for cartridges 310 ml.
- Caulking gun for sausages 600 ml closed tube.
- Nozzle for caulking gun 600 mm closed tube.

• **health & safety**

For full information consult the relevant Material Safety Data Sheet.

(*) For chemical resistances please contact your De Neef representative.

All data mentioned on this technical data sheet are product descriptions. They are the result of general experience and experiments and don't take any specific application into account. No further demands may be derived from these data. The manufacturer has the privilege to implement technical changes, which result from new research concerning the material composition and form. To verify that you are holding the latest version of this Technical Data Sheet, please visit www.deneef.net.

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