

MasterSeal 910

Hydroswellung waterbars for joints

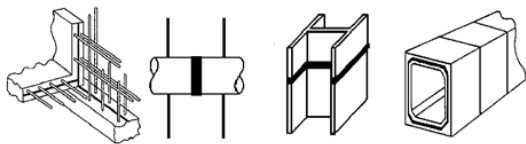
Material Description

MasterSeal 910 is a hydroswellung waterbar, ready for installation in cold joints to render the joints leak-proof. It is based on a blend of acrylate polymers and a unique hydroswellung polymer that acts by swelling on exposure to water, to form a seal.

Areas of Application

MasterSeal 910 is recommended for all construction joints exposed to hydrostatic pressure.

- Application areas include joints between:
- Abutments of concrete and rock, masonry, etc.
- Rafts and walls in tunnels and basements.
- Steel and concrete pipes, precast elements etc.



Characteristics & Benefits

- Swells in contact with water by up to 150% - prevents water ingress even when the joint width varies.
- Water molecules held by molecular attraction – captured water does not get transported through capillaries thus stopping further water ingress.
- Controlled swelling – swelling pressure insufficient to damage concrete.
- Does not form foam or gas with water – water absorption creates a durable seal. No air bubbles to breakdown and allow leaks.
- Reversible swelling process – MasterSeal 910 will reabsorb water after dry periods and accommodate minor movements in the structure.

Typical Performance Data

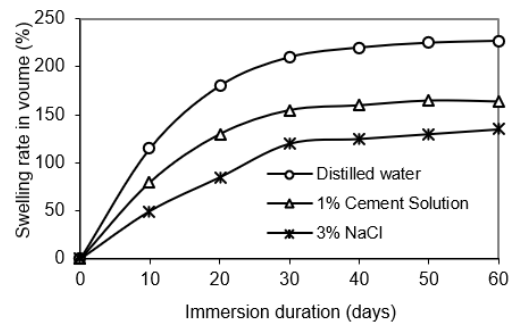
Swelling: The degrees of swelling of MasterSeal 910 when exposed to different solutions are illustrated in the chart below. The swelling action is designed to exert adequate pressure to profile the waterbar exactly onto the joint faces, to provide a tight seal even against high hydrostatic pressures.

Note:

- The swelling action does not change the homogeneous structure of the polymer matrix.
- The swelling is confined to the part exposed to water, since the waterbar is designed not to transport the captured water through its matrix.

Typical swelling of MasterSeal 910:

Size : 20 mm x 10 mm x 10 m
 Temperature : 25°C



Application

Surface Preparation

Joint surfaces should be structurally sound, clean, and free from loose particles and sharp protrusions, oil, grease, or any other contaminant. Repair any honeycombs, uneven surfaces and such other defects with a suitable Master Builders Solutions repair mortar such as MasterEmaco N 5200CI. Clear any standing water on the surface.

MasterSeal 910

Hydroswellable waterbars for joints

Application

MasterSeal 910 is bonded to the prepared base using construction adhesive.

Mechanical fastening at 20cm intervals can be employed as an alternative. Lay the **MasterSeal 910** preferably along the middle of the slab. It is important to leave the minimum coverage from both the edges of concrete to provide sufficient concrete cover to absorb the swelling stresses approximately 30mm from the edge.

An expanding joint paste may be used for bonding of **MasterSeal 910** on very uneven or rough surfaces.

The entire length of the **MasterSeal 910** must be bonded flat onto the base to prevent any leakage at a later stage. The levelling adhesive needs to be in intimate contact with the concrete substrate and the underside of the **MasterSeal 910**.

The concrete cover should be at least 80mm thick. The **MasterSeal 910** should be placed at the centre of walls which are up to 300mm thick and on the water-facing side of the wall for thicker section walls

Joints between **MasterSeal 910** sections that involve a change or direction (horizontal to vertical or at corners) should be butt jointed.

Do not butt-join runs of **MasterSeal 910** going in the same direction (e.g. ends of rolls). The ends of **MasterSeal 910** recommended to lap side-by-side by at least 50mm and not on top of one another.

- On wide joint surfaces (greater than 100 cm), two parallel **MasterSeal 910** may be laid for added protection.
- After installation, protect **MasterSeal 910** and the joint area from dirt, sand, stones, rain, water and other liquids.
- On uneven surfaces, use construction adhesive or an expanding joint paste to level out the unevenness and provide adhesion to the **MasterSeal 910**.

Injection

The waiting time for injection after the pouring of concrete is dependent on the curing time of concrete. The minimum period should be 28 days.

Use **MasterSeal 901** (swellable methacrylate vinyl ester based resin) or **BluRez CS 150** (hydrophilic polyurethane injection resin) for injection depending on the nature of job.

Start injection always at one end.

Estimating Data

	Size	Length
MasterSeal 910	20 mm x 10 mm	~ 10 m

Packaging

MasterSeal 910 packed in a carton is available.

20 mm x 10 mm: 10 m per roll x 3rolls

Storage

MasterSeal 910 should be stored away from moisture.

MasterSeal 910

Hydroswellling waterbars for joints

Disclaimer

MasterSeal-910 -ANZ-V9-0723

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