CHEMfix
Construction Chemicals

Technical Datasheet

CHEMfix SB100

Controlled Expansion Water Stop

Description

CHEMfix 100SB is a unique sealing strip which expands in a controlled fashion when exposed to moisture, forming a compression seal in concrete joints. **CHEMfix 100SB** is ideal for use in horizontal and vertical construction joints for cast in-situ concrete structure.
CHEMfix 100SB is manufactured utilizing a specialized mixing process which encapsulates hydrophilic materials into a rubber base creating a controlled, moisture activated seal. This product has the structural integrity of a rubber-based sealant, the features of a butyl sealant, as well as the ability to expend to create a SELF-HEALING JOINT MATERIAL.

WHAT DOES CONTROLLED EXPANSION MEAN?

Unlike many of the traditional clay-based products, **CHEMfix 100SB,** being hydrophilic polymer based, will not expand to a point that the hydration process itself leads to the possible "disintegration" of the water stop.
This can be an important issue when engineers are looking for a seal in vertical construction joints where the joint could open up due to excessive shrinkage in the concrete. In-field experience has proven that products which continually expand, may lose their structural integrity and begin to wash away from the joint when subjected to a constant flow of water.
The material does not expand prematurely, does not absorb water from the fresh concrete poured against it, and helps minimize any pre-expansion if the joint becomes ponded with water.
CHEMfix 100SB has been tested to withstand a 60 meter head of water pressure and because of its butyl rubber properties it may actually bond to both concrete surfaces, creating a gasket seal when used in conjunction with the **CHEMfix 900** epoxy adhesive, with the support of steel nails.

TECHNICAL INFORMATION

Waterproof Heat reflective & insulating roofing compound

Binder:	Acrylic
Filler:	Ceramic micro-spheres & precisely graded fillers
Pigments:	Weather Resistant Pigments
Drying Time:	6 Hours between Coats
Color:	White
Elongation:	300%
pH Value:	8-8.5

LIMITATIONS

Due to expansive forces, **CHEMfix 100SB** should be both detailed and installed with a minimum 50mm clear cover to the force of concrete.
Expansion rate can vary in salt and contaminated water. Increase cover when using light weight, low strength concrete. Not for use where excessive shrinkage of the concrete may occur at the joint faces.

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ADVANTAGES

- Excellent for application to rough concrete surfaces.
- Limited loss of integrity of water stop.
- Allows concrete to gain strength before expansion.
- For use in horizontal and vertical construction joints.
- Excellent adhesion to **CHEMfix 900** epoxy adhesive.
- Can be bedded into wet concrete.
- No compaction or displacement problems.
- Unaffected by repeated wet and dry cycles.
- Has the ability to bond to both concrete surfaces.
- No on-site welding required as with PVC water stops.
- Very easy to handle and install.
- No split forming required.
- Non toxic and requires no special handling.

AREAS OF APPLICATION

Typical application for **CHEMfix 100SB** includes:

- Tunnels
- Underground Structures
- Pits
- Box Culverts
- Water Tanks
- Retaining Walls
- New to old Concrete
- Manholes
- Poured in-Situ Construction Joints
- Basements

Note: Areas of application should be verified and approved by the consulting engineer who is satisfied with the suitability of the product for its intended use.

SPECIFICATION

CHEMfix 100SB controlled expansion water stop a supplied by **CHEMfix CONSTRUCTION CHEMICALS**. The water stop is to have a built-in delay system to minimize any pre-expansion and should only show minimal signs of deterioration or disintegration during and after expansion.
The water stop is to be placed in accordance with the manufactured installation guidelines, and design engineer's specification.

PACKAGING

Dimensions 20mm x 5mm x 10meter rolls
20mm x 10mm x 10meter rolls
(5 rolls per carton)

Storage

Shelf life is minimum 1 year when stored in covered and dry environment.

Note

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.

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