

Waterproofing

Waterproofing of joints

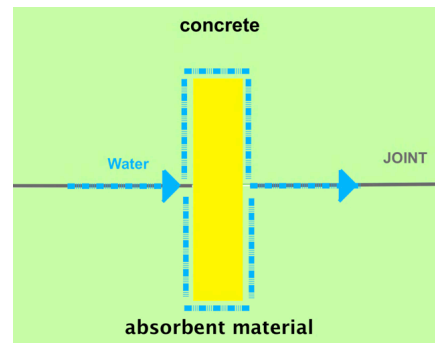
Why are BFL-Mastix waterstops with fine crushed gravel coated ?

A **hydrophobic** material is water repellent or is repelled from water.

A **hydrophobic** material cannot adhere on fresh concrete, because a physical-chemical adhesion between both materials is not possible.

Fresh concrete cannot adhere on hydrophobic material like metal, PVC, oiled formwork panels, etc. ...

Place a bit concrete on a plastic bag. You will see, that after hardening, the concrete does not adhere on the bag (hydrophobic material).



Water can circulate between a hydrophobic material and concrete.

An **absorbent** Material absorbs water.

An **absorbent** material can combine itself with fresh concrete, because a physical-chemical connection is built up. Cement paste is then penetrating the pores of the absorbent material.

Fresh concrete is adhering on absorbent materials, such as bricks, hard concrete, limestone gravel, and others. Cement paste is then penetrating the pores of the absorbent material.

The limestone gravel covering the BFL-Mastix waterstops is **absorbent**.

It is a porous, rough and clean limestone.

The grain size is classified 4/8 mm.

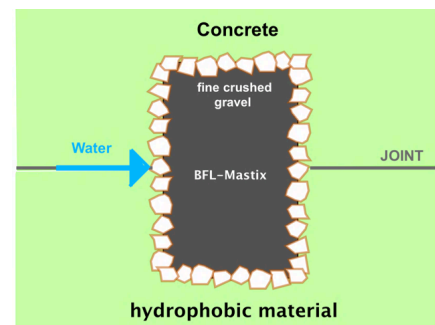
The limestone gravel is tightly, mechanically anchored on the core.

***Concrete** is a material composed of a mix of sand/gravel, cement and additives.*

***Fresh concrete** is the situation after its mixing until the final hardening.*

***Hard concrete** is absorbent.*

*Fresh concrete adheres on a hard one and on **BFL-Mastix waterstops**, thanks to the limestone gravel coating.*



Water cannot circulate between an absorbent material and the concrete

Thanks to their gravel coating, BFL-Mastix waterstops are tightly sticking to the concrete.

The connection between BFL-Mastix waterstops and the concrete is waterproof.

BFL-Mastix waterstops form a barrier blocking the water circulation.

Water cannot, neither circulate along the BFL-Mastix waterstops, nor pass around them in a concrete structure joint.

The Mastix system is simple to work with and naturally compatible with concrete and concrete structures

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