

**Mastix system : technical file**

**B01**

**Waterproofing** of retreat joints

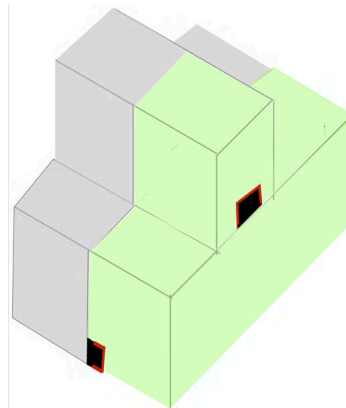
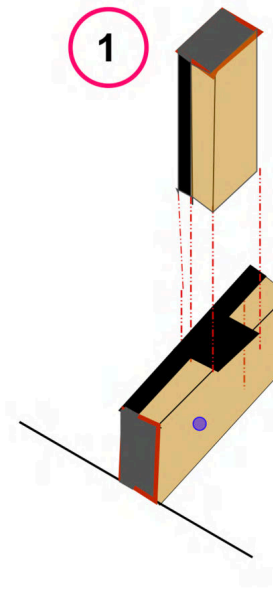
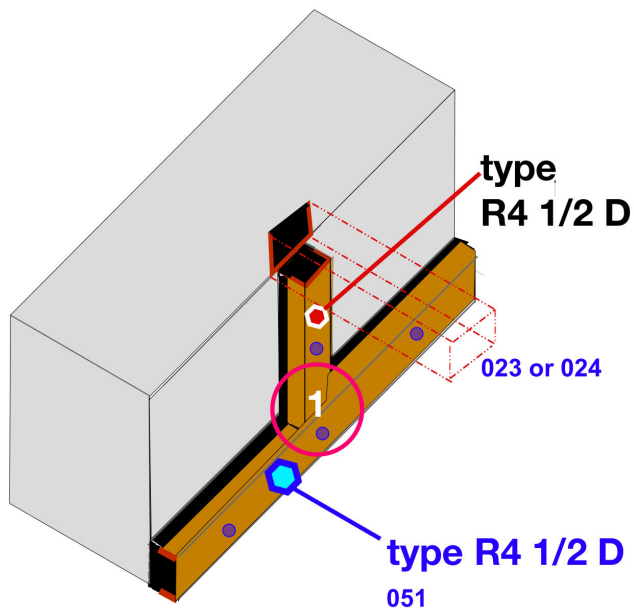
**Existing old/new raft foundation**

**Raft foundation/Walls**

**Variant with bands types R4 1/2 D - R4 - R**

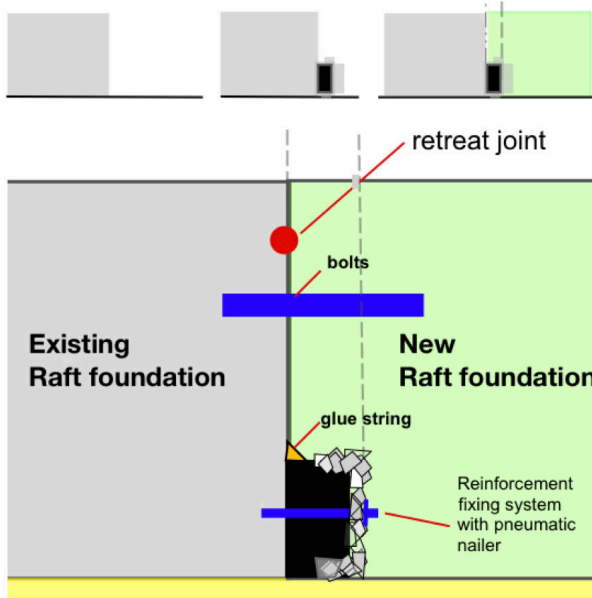
**Variant 1 with bands type R4 1/2 D**

Specifications sheet 051 - 023 - 024



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

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**BFL-Mastix type R4 1/2 D**

**Retreat or control joint**

Formed through retreat of the new concrete during its hardening period and non existing connection reinforcement.

**Choosing a profile type R4 1/2 D**

Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) pages 32 et 33

**Gluing of waterstops type R4 1/2 D**

- 1.- Preparation
  - 2.- Gluing of waterstops with Mastix MS-Polymer on dry or humid raft concrete and reinforcement with pneumatic nailer.
  - 3.- Control of the glued waterstops
- Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) pages 74 -78 - 79 - 80

**1. Description of waterstop type R4 1/2 D**

BFL-Mastix waterstops type R4 1/2 D are composed of a partly gravel covered core.

The core consists of a soft and waterproof rubber/bitumen elastomer material.

**The fine gravel coating, covering the profile R4 1/2 D, is a rough and porous non alkali-reactive material of grain size 4/8 mm.**

**The fine gravel is mechanically tightly anchored on the core material.**

**2. Waterproofness of concrete**

Modern concrete technology allows to produce waterproof concrete.

A correctly mixed concrete is sufficiently waterproof to satisfy all construction requirements.

**3. Reinforcement the glued waterstops**

In order to reinforce the glued waterstops, a pneumatic nailer can be used during the glue hardening period.

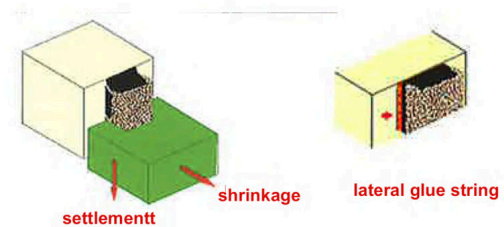
**The high elasticity of the band core avoids any liquid infiltration around the nails.**

**4. The deformable reserve**

The deformable reserve is a part of the core volume, allowing to absorb movements through retreat and settlement.

**5. Lateral glue string**

A lateral glue string of Mastix MS-Polymer is an additional security for vertically or horizontally glued waterstops.

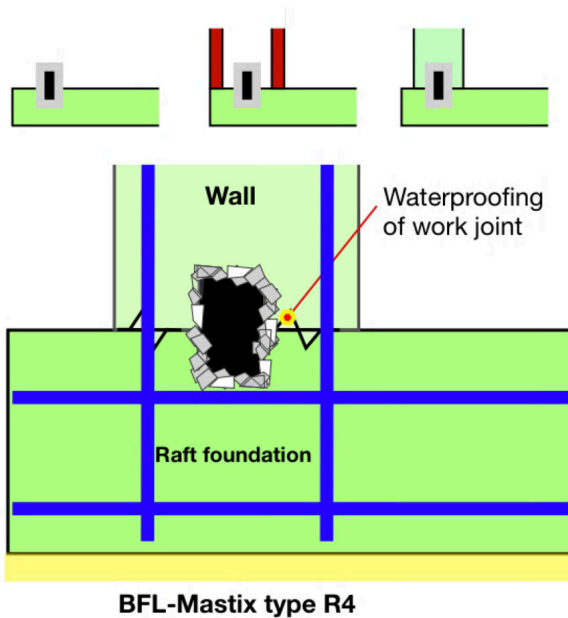


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Waterproofing of work joints

Raft foundation/Walls

Waterstops BFL-Mastix type R4 to be placed into the raft concrete



**Work or construction joint**

Interface between two concreting stages where water could penetrate.

**Choosing a profile type R4**

Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) page 15

**Placing of waterstops type R4**

- 1.- Preparation
- 2.- Bands incorporation in fresh raft concrete
- 3.- Control of placed bands

Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) pages 76 - 77- 80

**1. Description of waterstop type R4**

BFL-Mastix waterstops type R4 are composed of a totally gravel covered core. The core consists of a soft and waterproof rubber/bitumen elastomer material.

The fine gravel coating, covering the profile R4, is a rough and porous non alkali-reactive material of grain size 4/8 mm.

The fine gravel is mechanically tightly anchored on the core material.

**2. Liaison with fresh concrete**

Waterproofing a work joint cannot be done, if the fresh concrete gets in contact with a non-absorbing material, such as glass, steel or synthetics.

Fresh concrete adheres exclusively on absorbing and porous materials, such as the BFL-Mastix waterstops type R4.

**3. Water penetration**

The adhesion of the bands on fresh concrete avoids any possible water penetration around the bands or alongside in the work joint.

**Water penetration in work joints leads to damage or, on long term in some cases to a total structural damage.**

**4. Bad weather on the job site**

**BFL-Mastix waterstops type R4 placed in fresh concrete, do not suffer under rain, snow or frost.**

**5. Durability**

Only when the structure is demolished, then the BFL-Mastix waterstops will be detached from the concrete.

**It is possible to consider the BFL-Mastix waterstops as a constructive element of the concrete structure.**

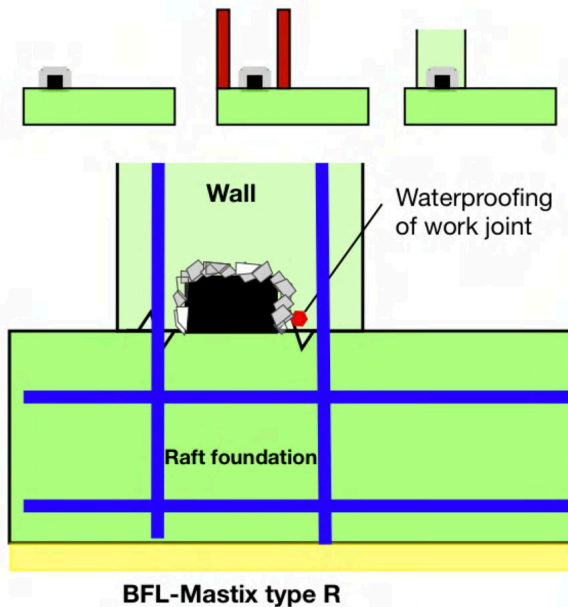
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Waterproofing of work joints

Raft foundation/Walls

Waterstops BFL-Mastix type R to be glued on the hard raft concrete



**Work or construction joint**

Interface between two concreting stages where water could penetrate.

**Choosing a profile type R**

Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) page 23

**Gluing of waterstops type R**

- 1.- Preparation
- 2.- Gluing with Mastix MS-Polymer on raft concrete
- 3.- Control of the glued waterstops

Consult the Mastix catalogue over [www.mastix.ch](http://www.mastix.ch) pages 74 -78 -79 - 80

**1. Description of waterstop type R**

BFL-Mastix waterstops type R are composed of a partly gravel covered core. The core consists of a soft and waterproof rubber/bitumen elastomer material.

The fine gravel coating, covering the profile R, is a rough and porous non alkali-reactive material of grain size 4/8 mm.

The fine gravel is mechanically tightly anchored on the core material.

**2. Liaison with fresh concrete**

Waterproofing a work joint cannot be done, if the fresh concrete gets in contact with a non-absorbing material, such as glass, steel or synthetics.

Fresh concrete adheres exclusively on absorbing and porous materials, such as the BFL-Mastix waterstops type R.

**3. Water penetration**

The adhesion of the bands on fresh concrete avoids any possible water penetration around the bands or alongside in the work joint.

**Water penetration in work joints leads to damage or, on long term in some cases to a total structural damage.**

**4. Bad weather on the job site**

**BFL-Mastix waterstops type R placed in fresh concrete, do not suffer under rain, snow or frost.**

**5. Durability**

Only when the structure is demolished, then the BFL-Mastix waterstops will be detached from the concrete.

**It is possible to consider the BFL-Mastix waterstops as a constructive element of the concrete structure.**

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