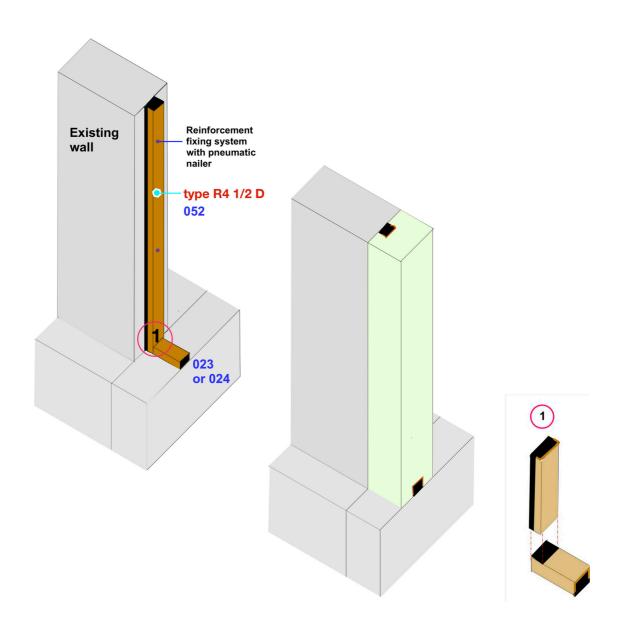
# Mastix system : technical file Waterproofing of retreat joints and work joints

**B21** 

Existing/New wall - Raft foundation/Walls

Variant with bands type R4 1/2 D

Variant 1 with bands type R4 1/2 D Specifications sheet 052 - 023 - 024 - 131



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

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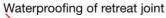
# Mastix system: technical file Waterproofing of retreat joints

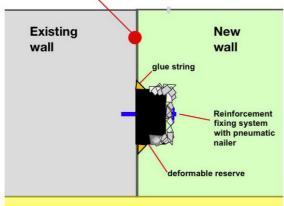
052

**Existing/New wall** 

Waterstops BFL-Mastix type R4 1/2 D to be glued on existing concrete







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 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 wallt concrete and reinforcement with pneumatic nailer.
- 3.- Control of the glued waterstops

  Consult the Mastix catalogue over 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.

Waterstops BFL-Mastix type R4  $1/2\ D$  shall not be used for expansion joints.

Waterstops BFL-Mastix type R4 1/2 D shall not be used in the presence of water pressure

# 3. Reinforcement the glued waterstops

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

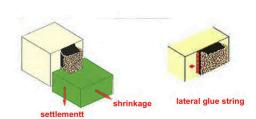
The high elasticity of the band core avoids any liquid infiltration around the nails.

#### 4. The deformable reserve

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

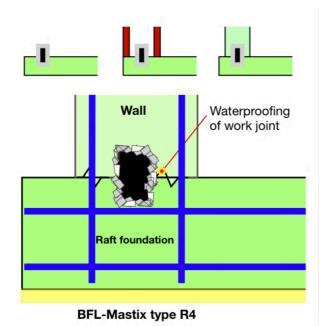
# 5. Lateral glue string

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



# Technical BFL-Mastix specifications sheet 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 <a href="https://www.mastix.ch">www.mastix.ch</a> 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 <u>www.mastix.ch</u> 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 exclusivley 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

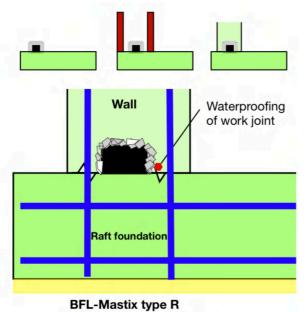
BFL-Mastix waterstops type R4 placed in fresh concrete, do not suffer under rain, snow or frost.

#### 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.

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 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

  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 exclusivley 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.

**Hot-joining of bands BFL-Mastix type R** 



1 Heating a metallic spatula



2 Prepare a small groove



3 Cut off the fine gravel layer



4 always glue black on black



5 Short heating up of both ends



6 Push both heated ends together