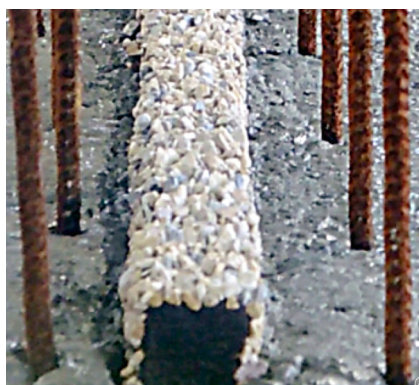




Durable watertightness of joints in concrete structures
with **BFL-Mastix waterstops**

Technical folder Catalog **Version 2021**



[Acces to the table of contents](#)

The company is ISO 9001/2015 certified

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10/2020

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BFL-Mastix Waterstops



Deformable waterstops

can absorb movements in the concrete structure.

Soil settlement – vibrations in the structure – earthquake effects – traffic vibrations – metro.

Waterstops coated with fine gravel,

solid material like the concrete gravel.

This fine gravel connected to the cement paste, assuring a solid anchorage, watertight and durable with the concrete.

Grain classe 4/8 mm – selected calcare – non alkali-reactive – the gravel is coated mechanically in factory – durable connection with the cement paste.

The waterstops cover three functions :

- Carry out a durable watertightness, remaining in best condition until the demolition of the structure
- Absorb movements in the structure
- Assure adhesion in the concrete

Waterstops compatible with the concrete :

- The waterstops are classified in the line of products which are compatible with fresh concrete.
- The connection of the gravel on the waterstop with the cement paste is equivalent with the concrete gravel and its cement paste.
- The selected fine gravel on the waterstops is of superior quality.

Limestone gravel clean, porous, rough.

Mastix Catalog



The Mastix catalog shows

solutions for durable waterproof joints in concrete structures.

Work joints – terminal joints – retreat joints – assembling joints.

The Mastix catalog shows

solutions for durable waterproof joints in all kind of privat and civil engineering structures.

Buildings – bassin – tunnel – bridges – barrages – dikes.

The Mastix catalog offers

solutions for a durable watertightness for joints in concrete structures.

Raft foundation/Raft foundation – Raft foundation/Wall – Wall/Wall – Wall/Slab
– Existing structure/new structure – precast structure – connection
steel/concrete, PVC/concrete, bitumen/concrete.

The Mastix catalog treats

the durable watertightness for all joints in concrete structures.

Work joints or construction joints – terminal joints – retreat joints or control joints – assembling joints.

mastix sa

Raft foundation / Raft foundation

Three kinds of joints

Page

Work joint

6

Terminal joint

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Retreat and settlement joint

20

return

RAFT / RAFT

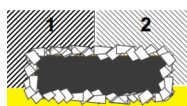
Raft foundation / Raft foundation

A choice of 3 types of BFL-Mastix waterstops

for a durable watertightness between raft concreting stages.

Page

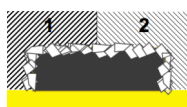
With BFL-Mastix Waterstops type R4



- Adhesion in the lean concrete
- Adhesion in the concretes of stage 1 and 2

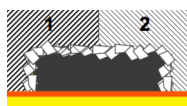
7

With BFL-Mastix Waterstops type R



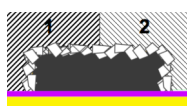
- Gluing on the lean concrete
- Adhesion in the concretes of stage 1 and 2

8



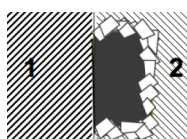
- Gluing on a PVC membrane
- Adhesion in the concretes of stage 1 and 2

9



- Gluing on a bitumen membrane
- Adhesion in the concretes of stage 1 and 2

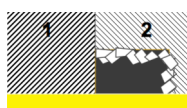
10



- Gluing on the hard concrete 1
- Adhesion in the concrete of stage 2

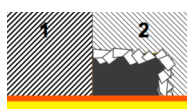
11

With BFL-Mastix Waterstops type RG



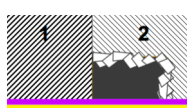
- Gluing on the lean concrete and the concrete of stage 1
- Adhesion in the concrete of stage 2

12



- Gluing on PVC and concrete 1
- Adhesion in the concrete of stage 2

13



- Gluing on bitumen and concrete 1
- Adhesion in the concrete of stage 2

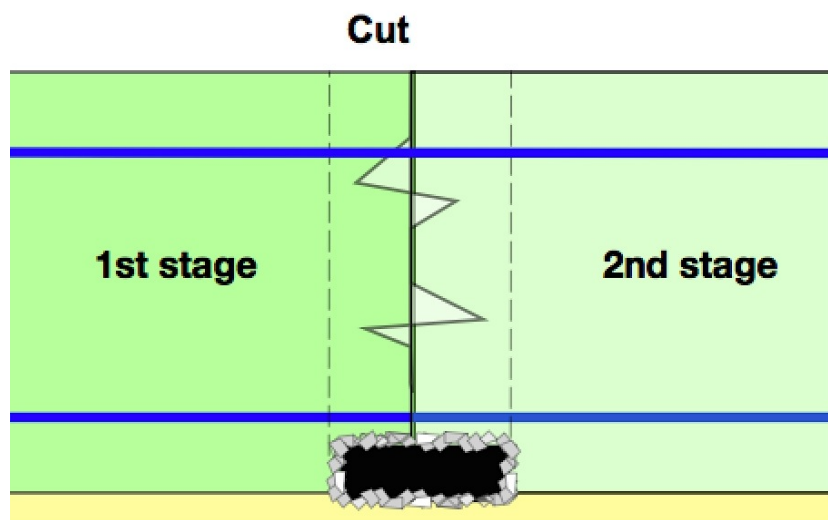
14

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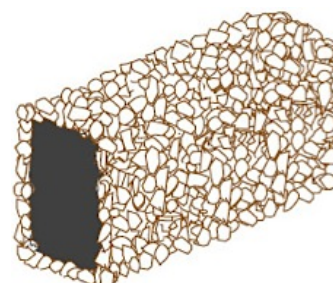
WORK JOINT
RAFT / RAFT

Raft foundation / Raft foundation

With Waterstops type R4



Waterstops type R4



Waterstops for work- and construction joints.
Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/70 R4

6 m²/Box



Water level
- permanent
- intermittent

20/120 R4

4.20 m²/Box



Basins
- swimming pool
- reservoir

Placing of bands

BFL-Mastix waterstops type R4 are place in the lean concrete.

Tender text

Raft foundation / Raft foundation
With waterstops type R4

Supply and incorporating of BFL-Mastix waterstops type R4 on the lean concrete to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type R4 consist of a waterproof and soft core to **absorb movements**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

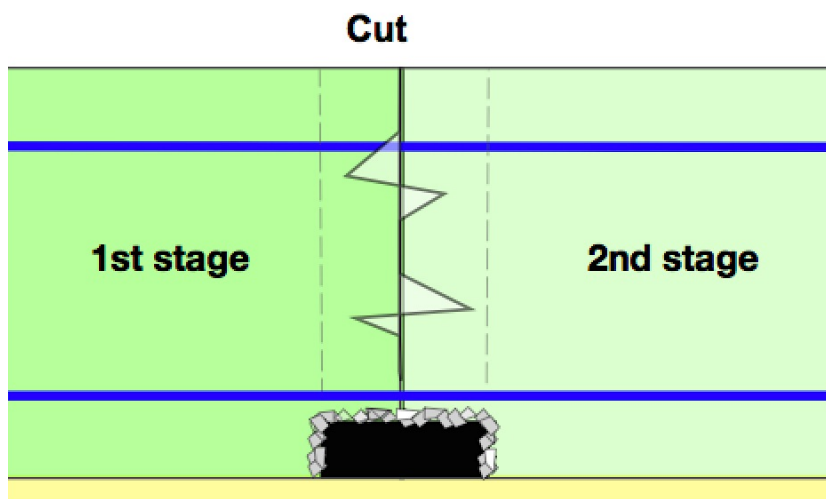
Profile (.....) * m'

* 20/70 R4 or 20/120 R4

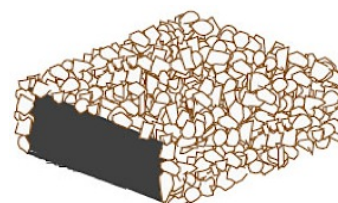
return

Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profiles

20/70 R
6 m'/Box

20/120 R
6 m'/Box

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on lean concrete.

20/70 R : 1 cartridge for 3 m'
20/120 R : 1 cartridge for 2 m'

Tender text

Raft foundation / Raft foundation
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on the lean concrete to **create a durable waterproofing** between the raft concreting stages.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

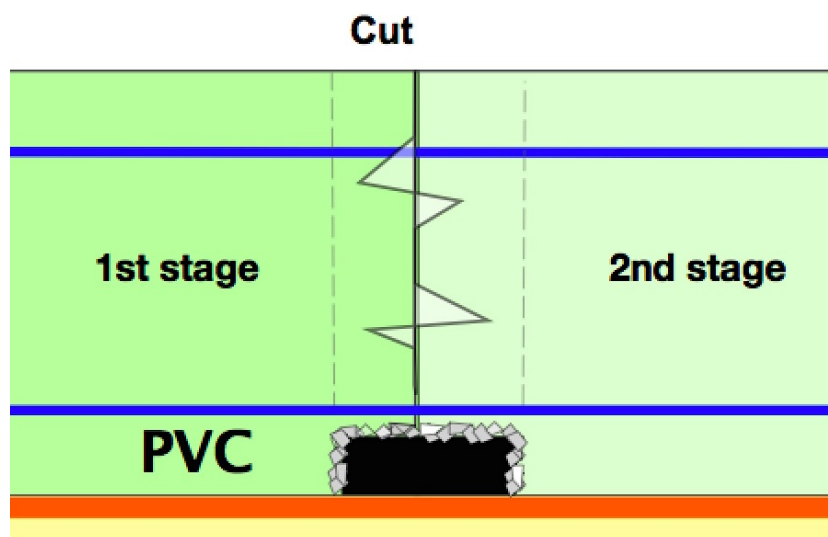
Profile (.....) * m'

* 20/70 R or 20/120 R

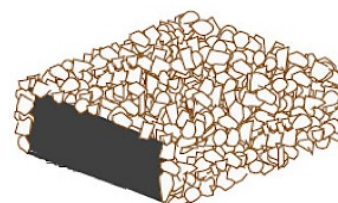
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Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on a membrane (PVC - bitumen - polyolefine).

20/70 R : 1 cartridge for 3 m'
20/120 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/70 R
6 m'/Box



Water level
- permanent
- intermittent

20/120 R
6 m'/Box



Basins
- swimming pool
- reservoir

Tender text

Raft foundation / Raft foundation
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on a PVC or polyolefine membrane to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.

The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The non gravel coated side is for gluing the band.

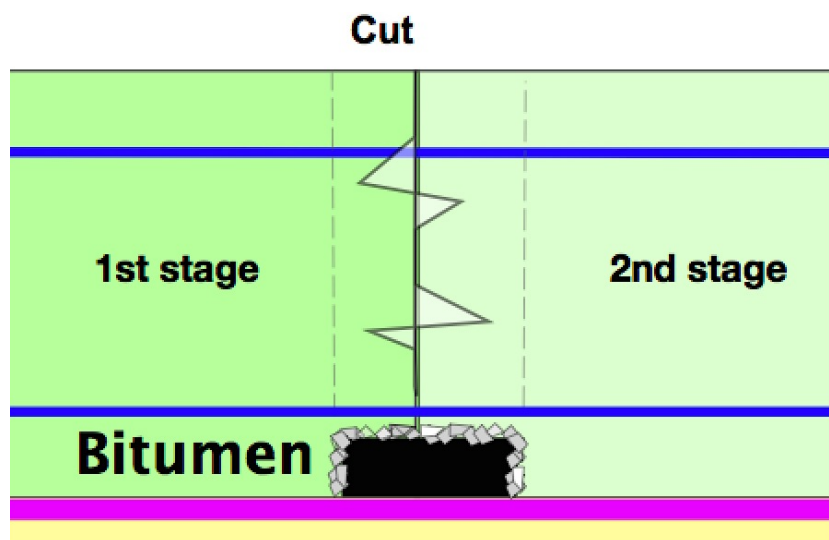
Profile (.....) * m'

* 20/70 R or 20/120 R

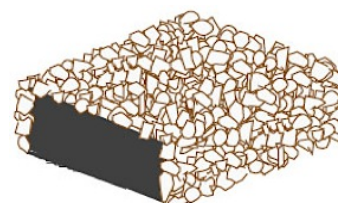
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Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on a membrane (PVC - bitumen - polyolefine).

20/70 R : 1 cartridge for 3 m'
20/120 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/70 R
6 m'/Box



Water level
- permanent
- intermittent

20/120 R
6 m'/Box



Basins
- swimming pool
- reservoir

Tender text

Raft foundation / Raft foundation
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on a bitumen membrane to **create a durable waterproofing** between the raft concreting stages.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to assure adhesion on fresh concrete.
The non gravel coated side is for gluing the band.

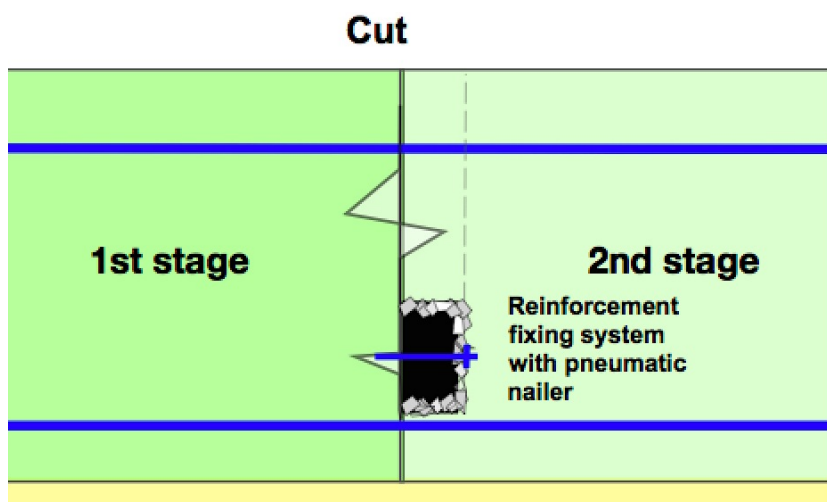
Profile (.....) * m'

* 20/70 R or 20/120 R

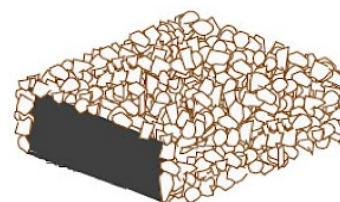
return

Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the hard concrete of concreting stage 1.
The gluing is reinforced with pneumatic nailing.

20/40 R : 1 cartridge for 6 m'
20/70 R : 1 cartridge for 3 m'
30/40 R : 1 cartridge for 6 m'
40/50 R : 1 cartridge for 4 m'

Tender text

Raft foundation / Raft foundation
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on the first stage concrete to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
The gluing is reinforced with pneumatic nailing.

BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.

The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The non gravel coated side is for gluing the band.

Profile (.....) * m'

* 20/40 R or 20/70 R or 30/40 R or 40/50 R

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/40 R
12 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box



Basins
- swimming pool
- reservoir

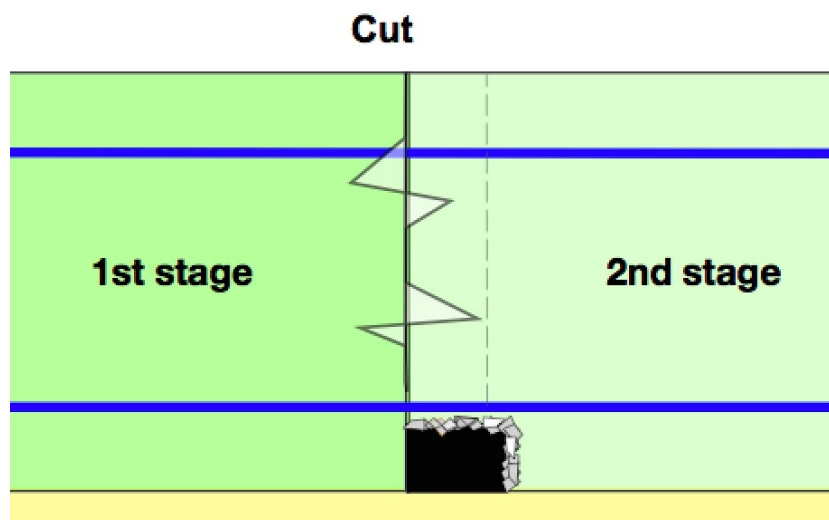
30/40 R
9 m'/Box

40/50 R
6 m'/Box

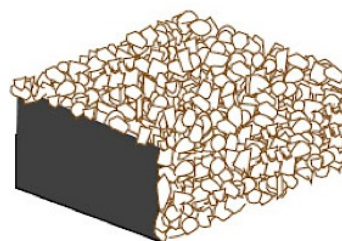
return

Raft foundation / Raft foundation

With Waterstops type RG



Waterstops type RG



Waterstops for work- and construction joints.

Two sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Two gravel-free sides for gluing on hard concrete, metal or PVC.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profiles

20/20 RG

24 m²/Box

30/40 RG

9 m²/Box

Placing of bands

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer on the hard concrete and the lean concrete of concreting stage 1.

20/20 RG : 1 cartridge for 6 m²

30/40 RG : 1 cartridge for 3 m²

Tender text

Raft foundation / Raft foundation
With waterstops type RG

Supply and gluing of BFL-Mastix waterstops type RG on the lean concrete and on the first stage concrete to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer. BFL-Mastix waterstops type RG consist of a waterproof and soft core to **absorb movements**.

The core is on two sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The core sides without gravel coating are for the gluing.

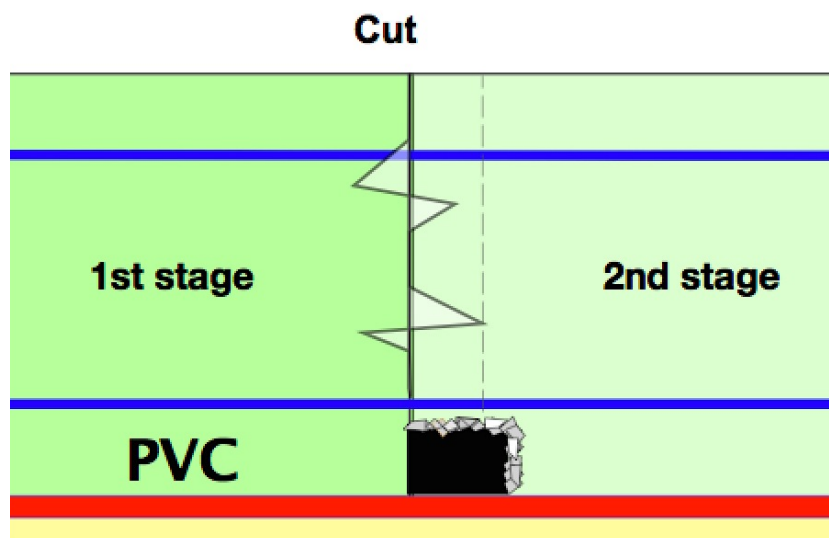
Profile (.....) * m²

* 20/20 RG or 30/40 RG

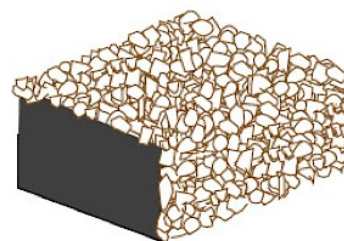
return

Raft foundation / Raft foundation

With Waterstops type RG



Waterstops type RG



Waterstops for work- and construction joints.

Two sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Two gravel-free sides for gluing on hard concrete, metal or PVC.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/20 RG
24 m'/Box



Water level
- permanent
- intermittent

30/40 RG
9 m'/Box



Basins
- swimming pool
- reservoir

Placing of bands

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer on the 1st stage hard concrete and the membrane (PVC - bitumen - polyolefine).

20/20 RG : 1 cartridge for 6 m'

30/40 RG : 1 cartridge for 3 m'

Tender text

Raft foundation / Raft foundation
With waterstops type RG

Supply and gluing of BFL-Mastix waterstops type RG on a PVC or polyolefine membrane and on the first stage concrete to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer. BFL-Mastix waterstops type RG consist of a waterproof and soft core to **absorb movements**.

The core is on two sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The core sides without gravel coating are for the gluing.

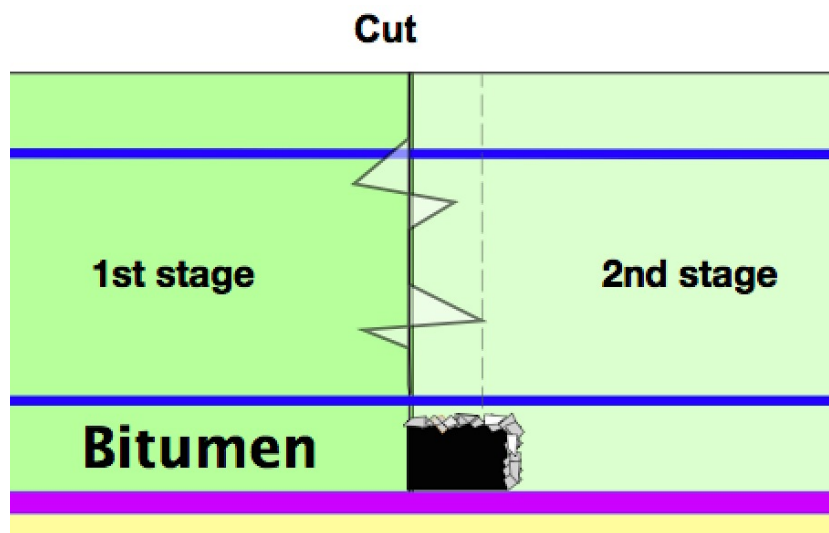
Profile (.....) * m'

* 20/20 RG or 30/40 RG

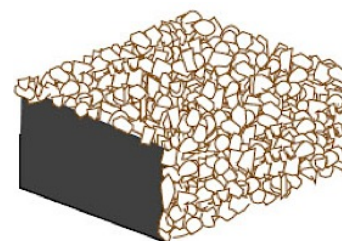
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Raft foundation / Raft foundation

With Waterstops type RG



Waterstops type RG



Waterstops for work- and construction joints.

Two sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Two gravel-free sides for gluing on hard concrete, metal or PVC.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/20 RG
24 m'/Box



Water level
- permanent
- intermittent

30/40 RG
9 m'/Box



Basins
- swimming pool
- reservoir

Placing of bands

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer on the 1st stage hard concrete and the membrane (PVC - bitumen - polyolefine).

20/20 RG : 1 cartridge for 6 m'

30/40 RG : 1 cartridge for 3 m'

Tender text

Raft foundation / Raft foundation
With waterstops type RG

Supply and gluing of BFL-Mastix waterstops type RG on a bitumen membrane and on the first stage concrete to **create a durable waterproofing** between the raft concreting stages.

BFL-Mastix waterstops type RG are glued with Mastix MS-Polymer. BFL-Mastix waterstops type RG consist of a waterproof and soft core to **absorb movements**.

The core is on two sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The core sides without gravel coating are for the gluing.

Profile (.....) * m'

* 20/20 RG or 30/40 RG

return

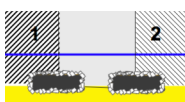
Raft foundation / Raft foundation

A choice of 2 types of BFL-Mastix waterstops

for a durable watertightness of endpoints in a
raft.

Page

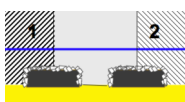
With BFL-Mastix Waterstops type R4



- Adhesion in the lean concrete
- Adhesion in the concretes of stage 1 and 2
- Adhesion in the concrete of the raft border joint

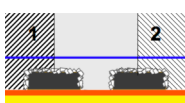
16

With BFL-Mastix Waterstops type R



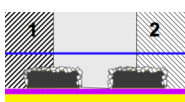
- Gluing on the lean concrete
- Adhesion in the concretes of stage 1 and 2
- Adhesion in the concrete of the raft border joint

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- Gluing on a PVC membrane
- Adhesion in the concretes of stage 1 and 2
- Adhesion in the concrete of the raft border joint

18



- Gluing on a bitumen membrane
- Adhesion in the concretes of stage 1 and 2
- Adhesion in the concrete of the raft border joint

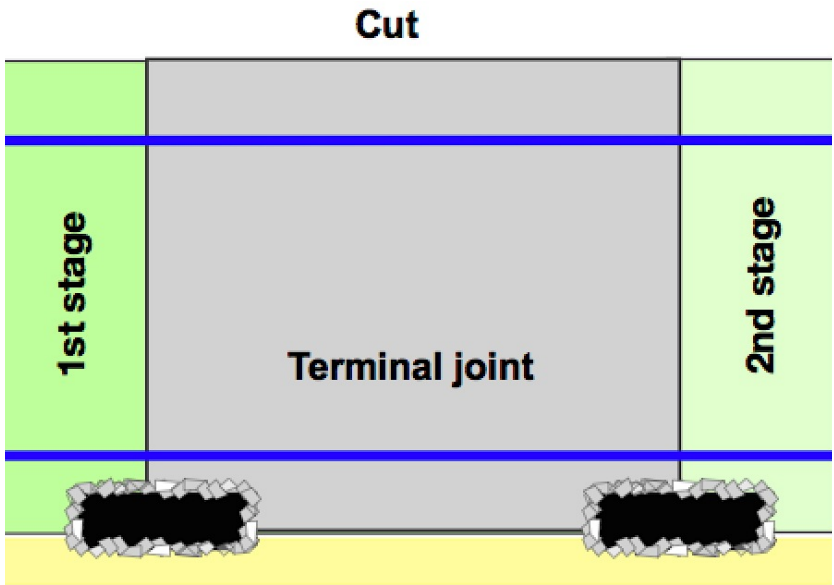
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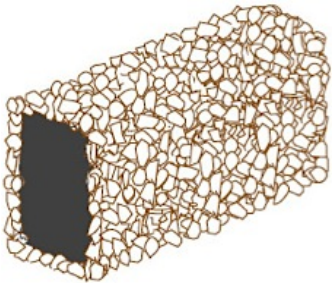
RAFT / RAFT
TERMINAL JOINT

Raft foundation / Raft foundation

With Waterstops type R4



Waterstops type R4



Waterstops for terminal joints.
Four sides of the band-profile are
gravel coated to assure adhesion
with fresh concrete.

Placing of bands

BFL-Mastix waterstops type R4 are
place in the lean concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profile

20/120 R4
4.20 m³/Box

Tender text

Raft foundation / Raft foundation
With waterstops type R4

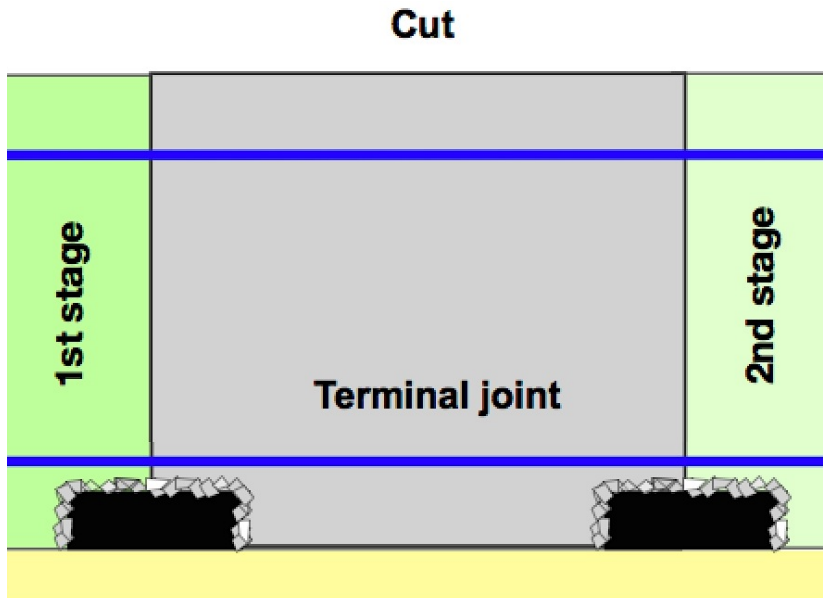
Supply and incorporating of BFL-Mastix
waterstops type R4 on the lean
concrete to **create a durable
waterproofing** terminal joint.
BFL-Mastix waterstops type R4
consist of a waterproof and soft core to
absorb movements.
The core is coated with fine gravel
size 4/8 mm to **assure adhesion** in
fresh concrete.

Profile 20/120 R4 m'

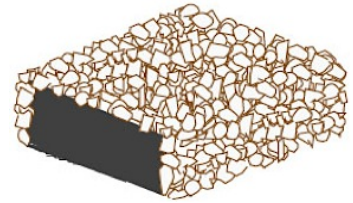
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Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for terminal joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on lean concrete.

20/120 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profile

20/120 R
6 m'/Box

Tender text

Raft foundation / Raft foundation
With waterstops type R

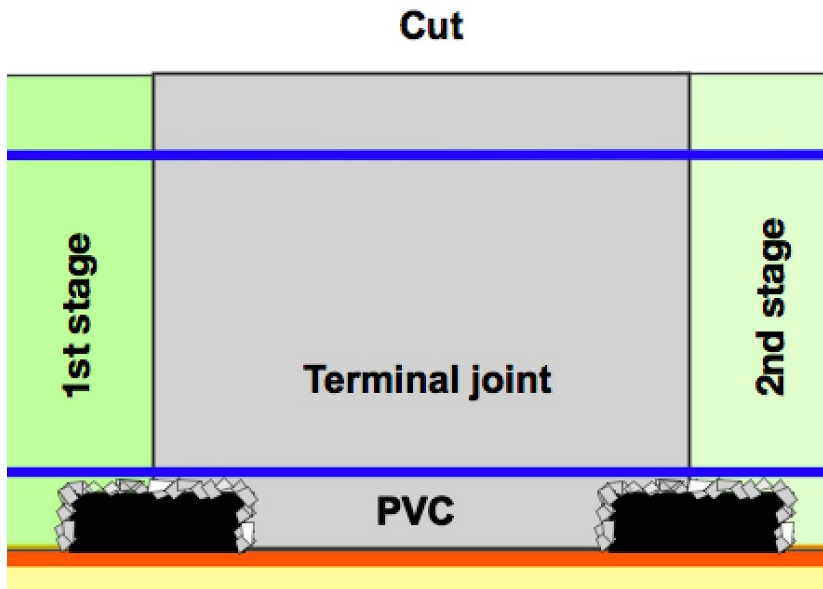
Supply and gluing of BFL-Mastix waterstops type R on the lean concrete to **create a durable waterproofing** terminal joint.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

Profile 20/120 R m'

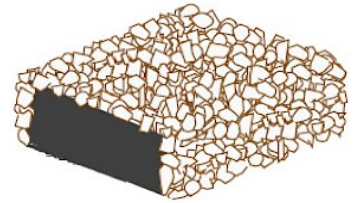
return

Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for terminal joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on lean concrete.

20/120 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profile

20/120 R
6 m'/Box

Tender text

Raft foundation / Raft foundation
With waterstops type R

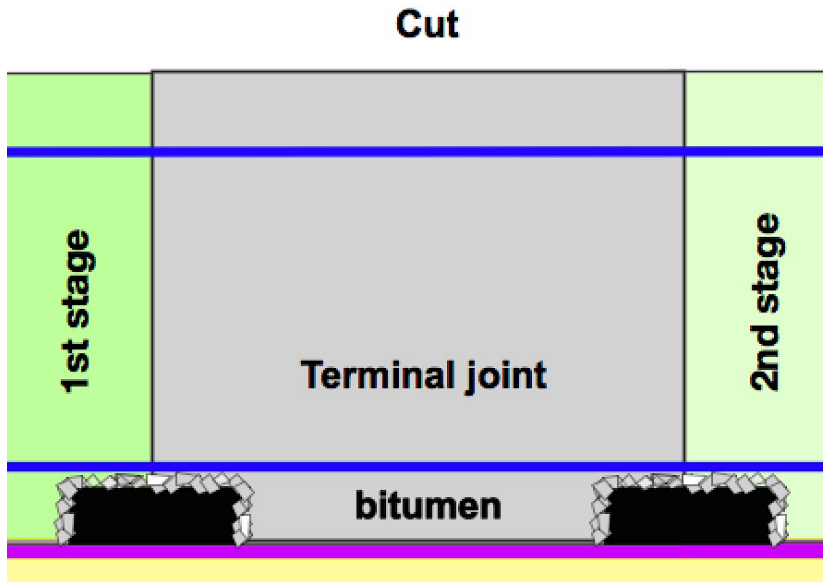
Supply and gluing of BFL-Mastix waterstops type R on a membrane of PVC or polyolefine to **create a durable waterproofing** terminal joint. BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**. The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete. The non gravel coated side is for gluing the band.

Profile 20/120 R m'

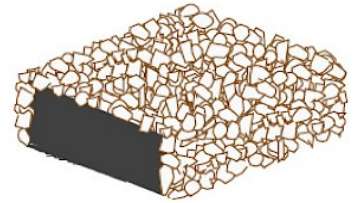
return

Raft foundation / Raft foundation

With Waterstops type R



Waterstops type R



Waterstops for terminal joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on lean concrete.

20/120 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profile

20/120 R
6 m'/Box

Tender text

Raft foundation / Raft foundation
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on a bitumen membrane to **create a durable waterproofing** terminal joint.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

Profile 20/120 R m'

return

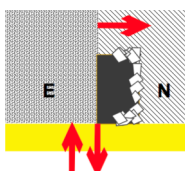
Raft / Raft

A choice of 2 types of BFL-Mastix waterstops

for a durable watertightness retreat joint
between an existing and a new raft section.

Page

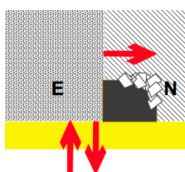
With BFL-Mastix Waterstops type R4 1/2 D



- Gluing on the existing concrete E
- Adhesion in the new concrete N

21

With BFL-Mastix Waterstops type RGD



- Gluing on the lean concrete and the existing concrete E
- Adhesion in the new concrete N

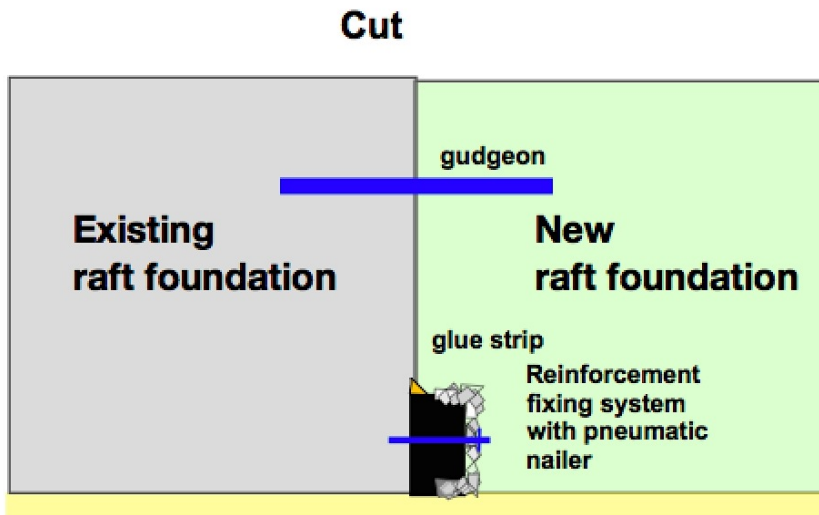
22

return

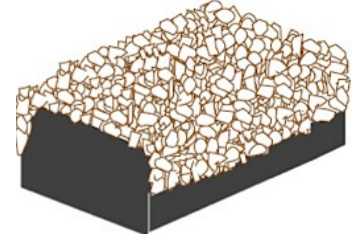
RAFT / RAFT
RETREAT JOINT

Existing raft foundation / New raft foundation

With Waterstops type R4 1/2 D



Waterstops type R4 1/2 D



Waterstops for retreat- and control joints.

One band side is for gluing to assure adhesion on hard concrete, on metal or PVC.

A deformable reserve is for absorbing retreat or settlement movements.

The half-high lateral gravel cover is for adhesion on fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

30/40 R4 1/2 D
12 m'/Box



Water level
- permanent
- intermittent

40/50 R4 1/2 D
6 m'/Box



Basins
- swimming pool
- reservoir

40/70 R4 1/2 D
6 m'/Box

Waterstops
with confinement

Profiles

Placing of bands

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer on the existing concrete. The gluing is reinforced with pneumatic nailing.

30/40 R4 1/2 D : 1 cartridge for 6 m'
40/50 R4 1/2 D : 1 cartridge for 4 m'
40/70 R4 1/2 D : 1 cartridge for 3 m'

Tender text

Existing raft foundation /
New raft foundation
With waterstops type R4 1/2 D

Supply and gluing of BFL-Mastix waterstops type R4 1/2 D to **create a durable waterproofing** between an existing raft and a new raft.

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer. The gluing is reinforced with pneumatic nailing.

BFL-Mastix waterstops type R4 1/2 D consist of a waterproof and soft core to **absorb movements**.

The band core is on half the perimeter tightly gravel 4/8 mm covered.

One gravel-free side is for the gluing.

A deformable reserve **allows to absorb** retreat movements.

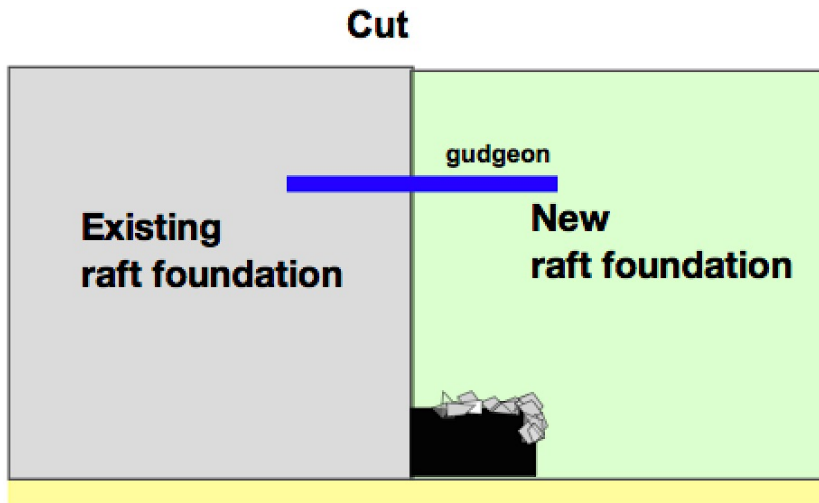
Profile (.....) * m'

* 30/40 R4 1/2 D or 40/50 R4 1/2 D or 40/70 R4 1/2 D

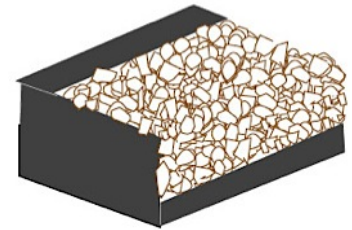
return

Existing raft foundation / New raft foundation

With Waterstops type RGD



Waterstops type RGD



Waterstops for retreat- and control joints.

Two sides are for the gluing to assure adhesion on hard concrete, metal or PVC.

A deformable reserve for absorbing retreat or settlement movements.

Three quarts of two adjacent sides with gravel coating to assure adhesion on fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profile

40/50 RGD

9 m'/Box

Placing of bands

BFL-Mastix waterstops type RGD are glued with Mastix MS-Polymer on existing concrete and the lean concrete.

40/50 RGD : 1 cartridge for 2 m'

Tender text

Existing raft foundation /
New raft foundation
With waterstops type RGD

Supply and gluing of BFL-Mastix waterstops type RGD to **create a durable waterproofing** between an existing raft and a new raft.

BFL-Mastix waterstops type RGD are glued with Mastix MS-Polymer. BFL-Mastix waterstops type RGD consist of a waterproof and soft core to **absorb movements**.

The core is partly covered with fine gravel size 4/8 mm.

Two sides without gravel are for the gluing.

A deformable reserve **allows to absorb** retreat- and settlement movements.

Profile 40/50 RGD m'

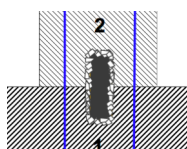
return

Raft foundation / Wall

A choice of 2 types of BFL-Mastix waterstops

for a durable watertightness for work-joint
between a raft and walls.

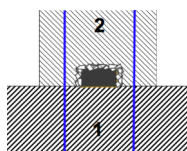
Page



With BFL-Mastix Waterstops type R4

- Adhesion in the concretes of stage 1 and 2

24



With BFL-Mastix Waterstops type R

- Gluing on the hard raft concrete of stage 1
- Adhesion in the concrete of stage 2

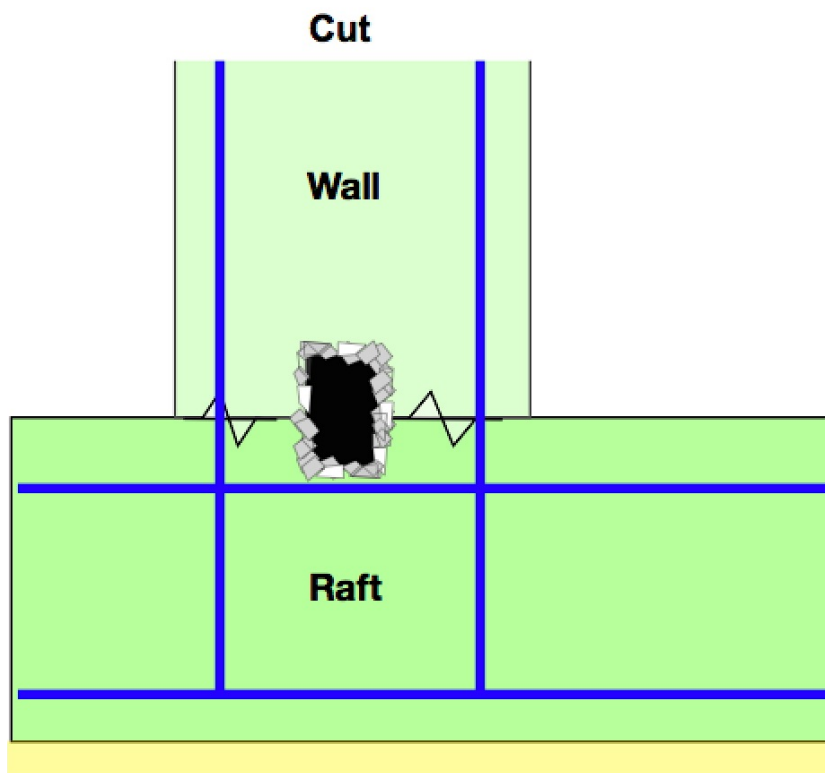
25

RAFT / WALL
WORK JOINT

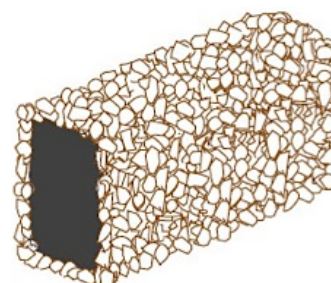
return

Raft foundation / Wall

With Waterstops type R4



Waterstops type R4



Waterstops for work- and construction joints.

Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Placing of bands

BFL-Mastix waterstops type R4 are place in raft concrete.

Tender text

Raft foundation / Wall
With waterstops type R4

Supply and incorporating of BFL-Mastix waterstops type R4 in the raft concrete to **create a durable waterproofing** joint with the rising walls.

BFL-Mastix waterstops type R4 consist of a waterproof and soft core to **absorb movements**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

Profile (.....) * m'

* 20/40 R4 or 20/70 R4 or
30/40 R4 or 40/50 R4 or 40/70 R4 or
40/100 R4

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/40 R4

12 m'/Box

30/40 R4

9 m'/Box



Water level
- permanent
- intermittent

20/70 R4

6 m'/Box

30/40 R4

9 m'/Box

40/50 R4

6 m'/Box



Basins
- swimming pool
- reservoir

40/70 R4

6 m'/Box

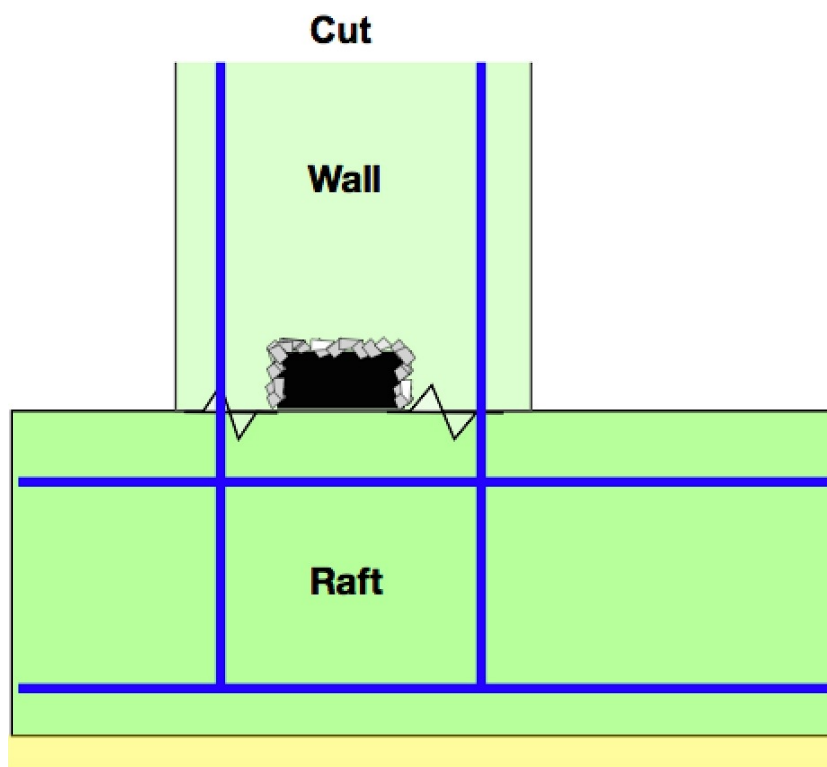
40/100 R4

3.60 m'/Box

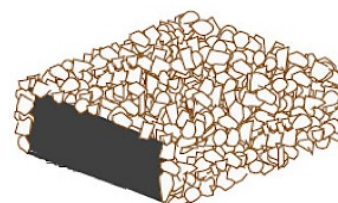
return

Raft foundation / Wall

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the raft concrete.

20/40 R : 1 cartridge for 6 m'
30/40 R : 1 cartridge for 6 m'
20/70 R : 1 cartridge for 3 m'
40/50 R : 1 cartridge for 4 m'
40/70 R : 1 cartridge for 3 m'
40/100 R : 1 cartridge for 2 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/40 R
12 m'/Box

30/40 R
9 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box

40/50 R
6 m'/Box



Basins
- swimming pool
- reservoir

40/70 R
6 m'/Box

40/100 R
3.60 m'/Box

Tender text

Raft foundation / Wall
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R on the raft concrete to **create a durable waterproofing joint** with the rising walls.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

Profile (.....) * m'

* 20/40 R or 20/70 R or 30/40 R
or 40/50 R or 40/70 R or 40/100 R

return

Wall / Wall

Two kinds of joints

Page

Work joint

27

Retreat and settlement joint

35

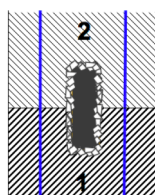
WALL / WALL

return

Wall / Wall

A choice of 3 types of BFL-Mastix waterstops

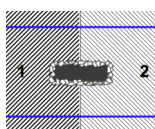
for a durable watertightness of concreting stages in the walls.



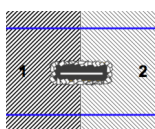
Page

With BFL-Mastix Waterstops type R4

- Adhesion in the concretes of stage 1 and 2 28

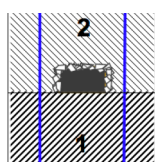


- Adhesion in the concretes of stage 1 and 2 29



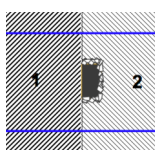
With BFL-Mastix Waterstops type RB

- Adhesion in the concretes of stage 1 and 2 30

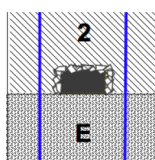


With BFL-Mastix Waterstops type R

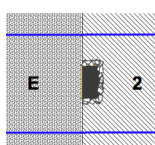
- Gluing on the concrete of stage 1
- Adhesion in the concrete of stage 2 31



- Gluing on the concrete of stage 1
- Adhesion in the concrete of stage 2 32



- Gluing on an existing concrete E
- Adhesion in the concrete 2 33



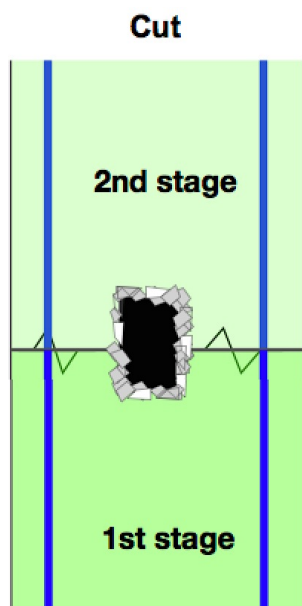
- Gluing on an existing wall E
- Adhesion in the concrete of stage 2 34

return

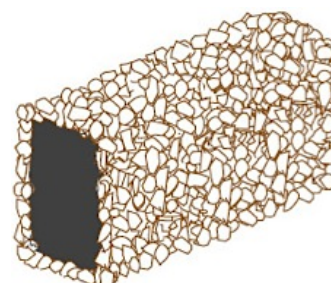
WALL / WALL WORK JOINT

Wall / Wall

With Waterstops type R4



Waterstops type R4



Waterstops for work- and construction joints.

Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Placing of bands

BFL-Mastix waterstops type R4 are incorporated in the 1st concreting stage.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profiles

20/40 R4

12 m'/Box

30/40 R4

9 m'/Box

20/70 R4

6 m'/Box

30/40 R4

9 m'/Box

40/50 R4

6 m'/Box

40/70 R4

6 m'/Box

40/100 R4

3.60 m'/Box

Tender text

Wall / Wall
With waterstops type R4

Supply and horizontal incorporating of BFL-Mastix waterstops type R4 in the concrete to **create a durable waterproofing** between two concreting stages of a wall.

BFL-Mastix waterstops type R4 consist of a waterproof and soft core to **absorb movements**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

Profile (.....) * m'

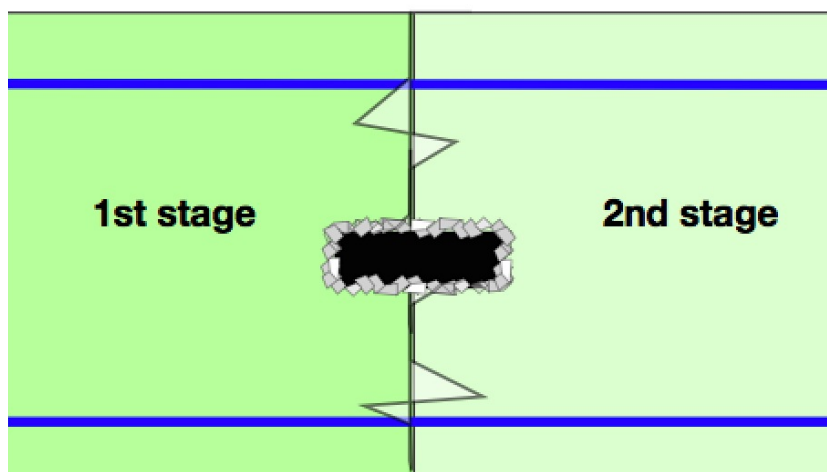
* 20/40 R4 or 20/70 R4 or 30/40 R4
or 40/50 R4 or 40/70 R4 or 40/100 R4

return

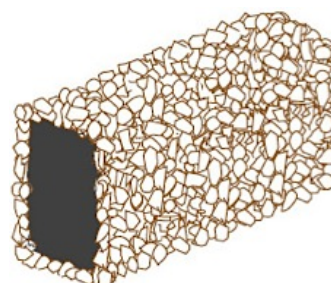
Wall / Wall

With Waterstops type R4

Plan



Waterstops type R4



Waterstops for work- and construction joints.

Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/70 R4
6 m²/Box

30/40 R4
9 m²/Box



Water level
- permanent
- intermittent

40/50 R4
6 m²/Box

40/70 R4
6 m²/Box



Basins
- swimming pool
- reservoir

40/100 R4
3.60 m²/Box

Placing of bands

BFL-Mastix waterstops type R4 are incorporated in the 1st concreting stage formwork.

Tender text

Wall / Wall
With waterstops type R4

Supply and vertical incorporating of BFL-Mastix waterstops type R4 in the wall formwork to **create a durable waterproofing** between the wall concreting stages.

BFL-Mastix waterstops type R4 consist of a waterproof and soft core to **absorb movements**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

Profile (.....) * m'

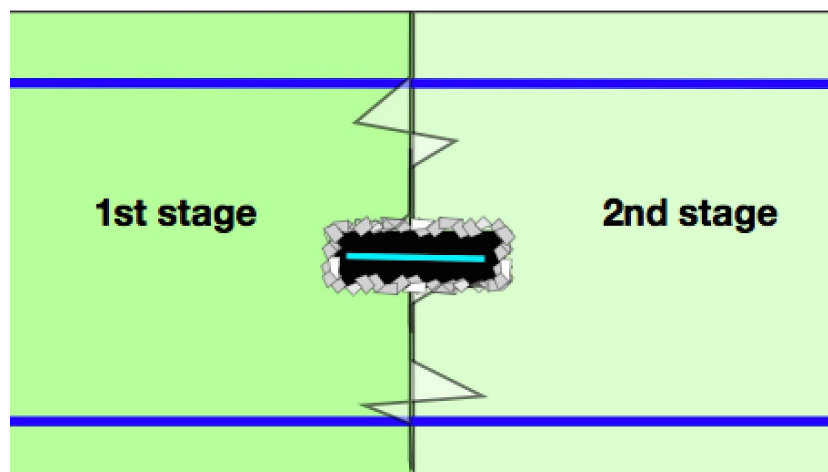
* 20/70 R4 or 30/40 R4 or 40/50 R4
or 40/70 R4 or 40/100 R4

return

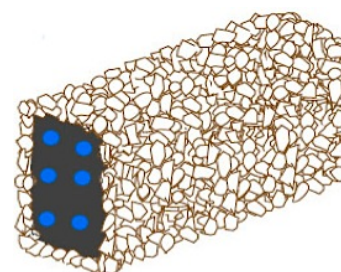
Wall / Wall

With Waterstops type RB

Plan



Waterstops type RB



Waterstops for work- and construction joints.

Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Reinforced bands

Choice of a BFL-Mastix band

Risk of water infiltration

Profiles



Subsoil water
- rain
- spring

20/70 RB

6 m'/Box



Water level
- permanent
- intermittent

20/120 RB

6 m'/Box



Basins
- swimming pool
- reservoir

Placing of bands

BFL-Mastix waterstops type RB are incorporated in the 1st concreting stage formwork.

Tender text

Wall / Wall
With waterstops type RB

Supply and vertical incorporating of BFL-Mastix waterstops type RB in the wall formwork to **create a durable waterproofing** between the wall concreting stages.

Waterstops BFL-Mastix type RB consist of an elastic and reinforced core to **avoid creeping**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

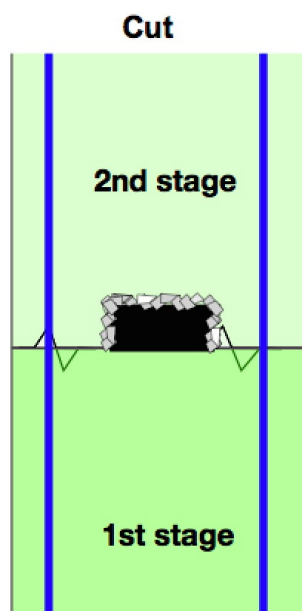
Profile (.....) * m'

* 20/70 RB or 20/120 RB

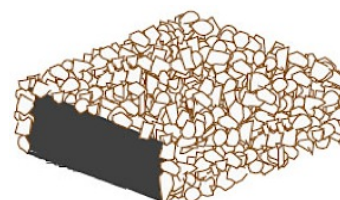
return

Wall / Wall

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the hard concrete of concreting stage 1.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

15/30 R
21 m'/Box

20/40 R
12 m'/Box

30/40 R
9 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R
6 m'/Box

40/70 R
6 m'/Box

Tender text

Wall / Wall
With waterstops type R

Supply and horizontal gluing of BFL-Mastix waterstops type R on a wall concrete to **create a durable waterproofing** between horizontal concreting stages.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

Profile (.....) * m'

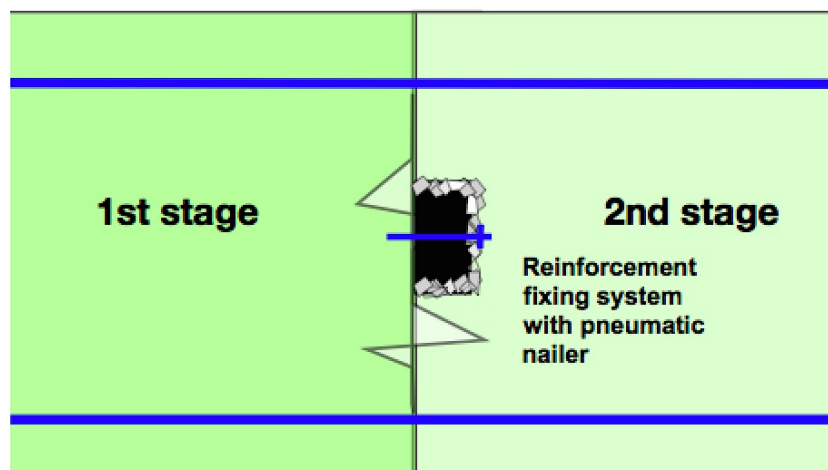
* 15/30 R or 20/40 R or 30/40 R or 20/70 R or 40/50 R or 40/70 R

return

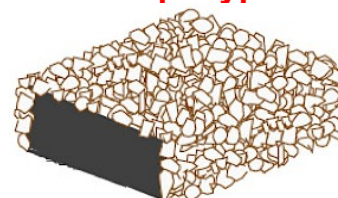
Wall / Wall

With Waterstops type R

Plan



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the hard concrete of stage 1. The gluing is reinforced with pneumatic nailing.

15/30 R : 1 cartridge for 10 m'
20/40 R : 1 cartridge for 6 m'
30/40 R : 1 cartridge for 6 m'
20/70 R : 1 cartridge for 3 m'
40/50 R : 1 cartridge for 4 m'
40/70 R : 1 cartridge for 3 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

15/30 R
21 m'/Box

20/40 R
12 m'/Box

30/40 R
9 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R
6 m'/Box

40/70 R
6 m'/Box

Tender text

Wall / Wall
With waterstops type R

Supply and vertical gluing of BFL-Mastix waterstops type R on a wall concrete to **create a durable waterproofing** between the wall concreting stages.
BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. The gluing is reinforced with pneumatic nailing.
BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.
The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.
The non gravel coated side is for gluing the band.

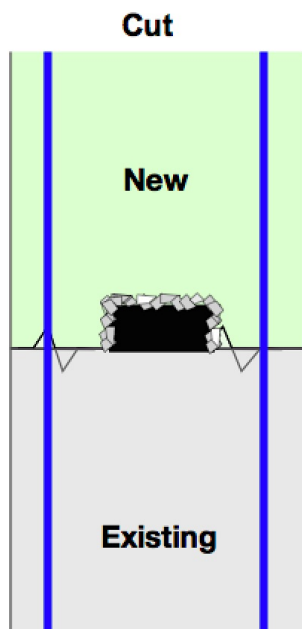
Profile (.....) * m'

* 15/30 R or 20/40 R or 30/40 R
or 20/70 R or 40/50 R or 40/70 R

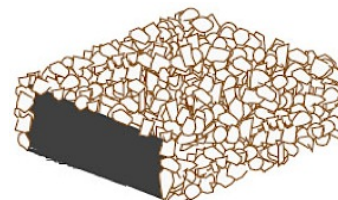
return

Demolished concrete / New concrete

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the demolished concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

15/30 R
21 m'/Box

20/40 R
12 m'/Box

30/40 R
9 m'/Box

15/30 R : 1 cartridge for 10 m'
20/40 R : 1 cartridge for 6 m'
30/40 R : 1 cartridge for 6 m'
20/70 R : 1 cartridge for 3 m'
40/50 R : 1 cartridge for 4 m'
40/70 R : 1 cartridge for 3 m'



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R
6 m'/Box

40/70 R
6 m'/Box

Tender text

Demolished concrete / New concrete
With waterstops type R

Supply and horizontal gluing of BFL-Mastix waterstops type R on the hard concrete to **create a durable waterproofing** between the wall concreting stages.

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.

The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The non gravel coated side is for gluing the band.

Profile (.....) * m'

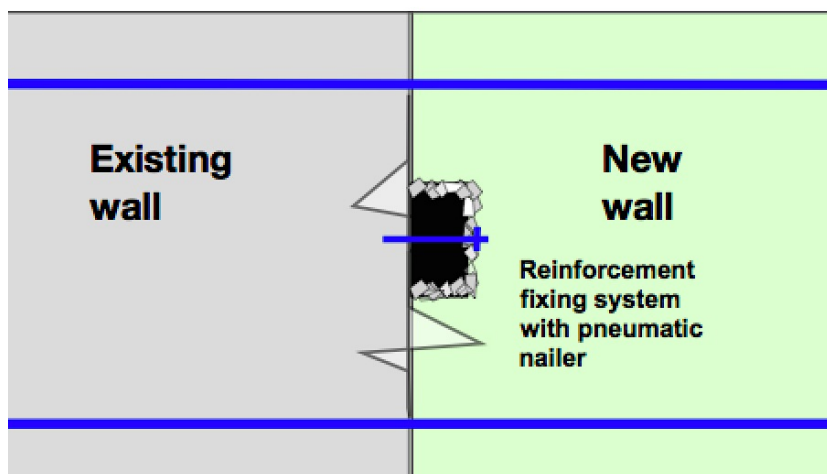
* 15/30 R or 20/40 R or 30/40 R
or 20/70 R or 40/50 R or 40/70 R

return

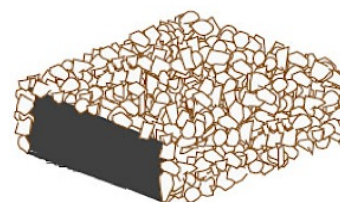
Existing wall / New wall

With Waterstops type R

Plan



Waterstops type R



Waterstops for work- and construction joints.
Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.
The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the concrete of an existing wall. The gluing is reinforced with pneumatic nailing.

15/30 R : 1 cartridge for 10 m'
20/40 R : 1 cartridge for 6 m'
30/40 R : 1 cartridge for 6 m'
20/70 R : 1 cartridge for 3 m'
40/50 R : 1 cartridge for 4 m'
40/70 R : 1 cartridge for 3 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

15/30 R
21 m'/Box

20/40 R
12 m'/Box

30/40 R
9 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R
6 m'/Box

40/70 R
6 m'/Box

Tender text

Existing wall / New wall
With waterstops type R

Supply and vertical gluing of BFL-Mastix waterstops type R on the concrete of an existing wall to **create a durable waterproofing** between the wall concreting stages.

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. The gluing is reinforced with pneumatic nailing.

BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.

The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The non gravel coated side is for gluing the band.

Profile (.....) * m'

* 15/30 R or 20/40 R or 30/40 R
or 20/70 R or 40/50 R or 40/70 R

return

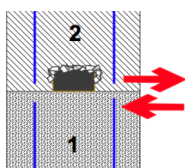
Wall / Wall

A choice of 2 types of BFL-Mastix waterstops

for a durable watertightness for the retreat-joints in the walls.

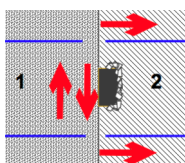
Page

With BFL-Mastix Waterstops type R4 1/2 D



- Gluing on demolished concrete surface 1
- Adhesion in the concrete 2

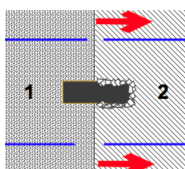
36



- Gluing on an existing concrete 1
- Adhesion in the concrete of stage 2

37

With BFL-Mastix Waterstops type R4 1/2



- Gluing a waterstop in a notch 1
- Adhesion in the concrete of stage 2

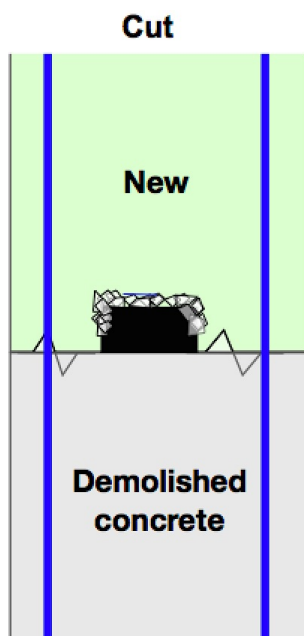
38

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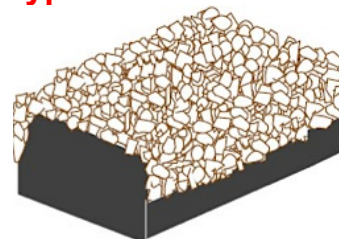
WALL / WALL RETREAT JOINT

Demolished concrete / New concrete

With Waterstops type R4 1/2 D



Waterstops type R4 1/2 D



Waterstops for retreat- and control joints.

One band side is for gluing to assure adhesion on hard concrete, on metal or PVC.

A deformable reserve is for absorbing retreat or settlement movements.

The half-high lateral gravel cover is for adhesion on fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

30/40 R4 1/2 D
12 m'/Box



Water level
- permanent
- intermittent

40/50 R4 1/2 D
6 m'/Box



Basins
- swimming pool
- reservoir

40/70 R4 1/2 D
6 m'/Box

Waterstops
with confinement

Placing of bands

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer on the demolished concrete.

30/40 R4 1/2 D : 1 cartridge for 6 m'

40/50 R4 1/2 D : 1 cartridge for 4 m'

40/70 R4 1/2 D : 1 cartridge for 3 m'

Tender text

Demolished concrete / New concrete
With waterstops type R4 1/2 D

Supply and gluing of BFL-Mastix waterstops type R4 1/2 D to **create a durable waterproofing** between a demolished wall and a new wall.

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer. BFL-Mastix waterstops type R4 1/2 D consist of a waterproof and soft core to **absorb movements**.

The band core is on half the perimeter tightly gravel 4/8 mm covered.

One gravel-free side is for the gluing.

A deformable reserve **allows to absorb** retreat movements.

Profile (.....) * m'

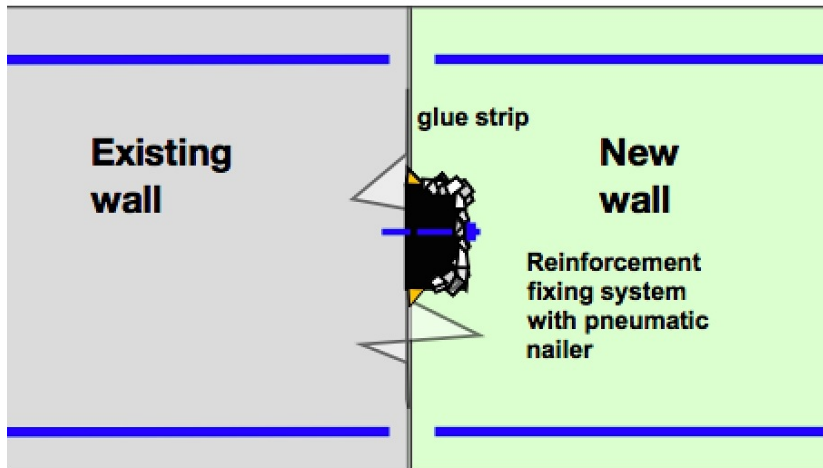
* 30/40 R4 1/2 D or 40/50 R4 1/2 D or 40/70 R4 1/2 D

return

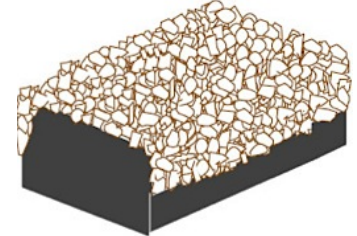
Existing wall / New wall

With Waterstops type R4 1/2 D

Plan



Waterstops type R4 1/2 D



Waterstops for retreat- and control joints.

One band side is for gluing to assure adhesion on hard concrete, on metal or PVC.

A deformable reserve is for absorbing retreat or settlement movements.

The half-high lateral gravel cover is for adhesion on fresh concrete.

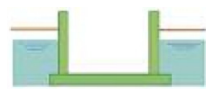
Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water

- rain
- spring



Water level

- permanent
- intermittent



Basins

- swimming pool
- reservoir

Waterstops
with confinement

Profiles

30/40 R4 1/2 D

12 m'/Box

40/50 R4 1/2 D

6 m'/Box

40/70 R4 1/2 D

6 m'/Box

Placing of bands

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer on the existing wall. The gluing is reinforced with pneumatic nailing.

30/40 R4 1/2 D : 1 cartridge for 6 m'

40/50 R4 1/2 D : 1 cartridge for 4 m'

40/70 R4 1/2 D : 1 cartridge for 3 m'

Tender text

Existing wall / New wall

With waterstops type R4 1/2 D

Supply and gluing of BFL-Mastix waterstops type R4 1/2 D to **create a durable waterproofing** between an existing wall and a new wall.

BFL-Mastix waterstops type R4 1/2 D are glued with Mastix MS-Polymer.

The gluing is reinforced with pneumatic nailing.

BFL-Mastix waterstops type R4 1/2 D consist of a waterproof and soft core to **absorb movements**.

The band core is on half the perimeter tightly gravel 4/8 mm covered.

One gravel-free side is for the gluing.

A deformable reserve **allows to absorb** retreat movements.

Profile (.....) * m'

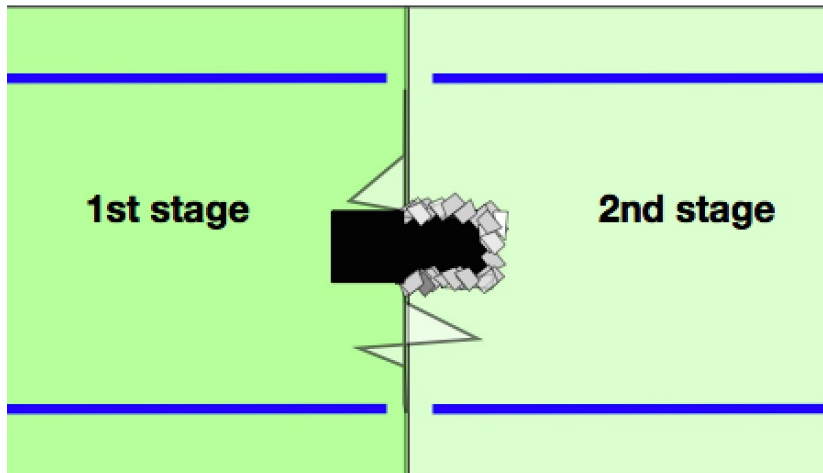
* 30/40 R4 1/2 D or 40/50 R4 1/2 D or 40/70 R4 1/2 D

return

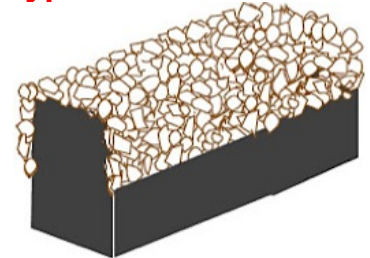
Wall / Wall

With Waterstops type R4 1/2

Plan



Waterstops type R4 1/2



Waterstops for retreat- and control joints.

One side of the core is for gluing in a notch, on hard concrete, metal and PVC.

A deformable reserve is for absorbing retreat movements.

The half-high lateral gravel cover is for adhesion on fresh concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

20/70 R4 1/2

6 m'/Box

40/70 R4 1/2

6 m'/Box



Water level
- permanent
- intermittent



Basins
- swimming pool
- reservoir

Profiles

Placing of bands

BFL-Mastix waterstops type R4 1/2 are glued with Mastix MS-Polymer in a notch.

20/70 R4 1/2 : 1 cartridge for 10 m'

40/70 R4 1/2 : 1 cartridge for 6 m'

Tender text

Wall / Wall

With waterstops type R4 1/2

Supply and gluing of BFL-Mastix waterstops type R4 1/2 to **create a durable waterproofing** between an existing wall and a new wall.

BFL-Mastix waterstops type R4 1/2 are glued with Mastix MS-Polymer in a notch.

BFL-Mastix waterstops type R4 1/2 consist of a waterproof and soft core to **absorb movements**.

The band core is on half the perimeter tightly gravel 4/8 mm covered.

One gravel-free side is for the gluing.

A deformable reserve **allows to absorb** retreat or settlement movements.

Profile (.....) * m'

* 20/70 R4 1/2 or 40/70 R4 1/2

return

Wall / Slab

Two kinds of joints

Page

Work joint

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Assembling joint

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return

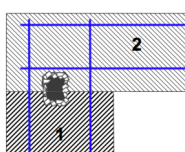
WALL / SLAB

Wall / Slab

A choice of 3 types of BFL-Mastix waterstops

for a durable watertightness between concreting stages of the wall and the following slab.

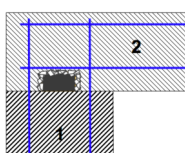
Page



With BFL-Mastix Waterstops type R4

- Adhesion in the concretes of stage 1 and 2

41



With BFL-Mastix Waterstops type R

- Gluing on concrete 1

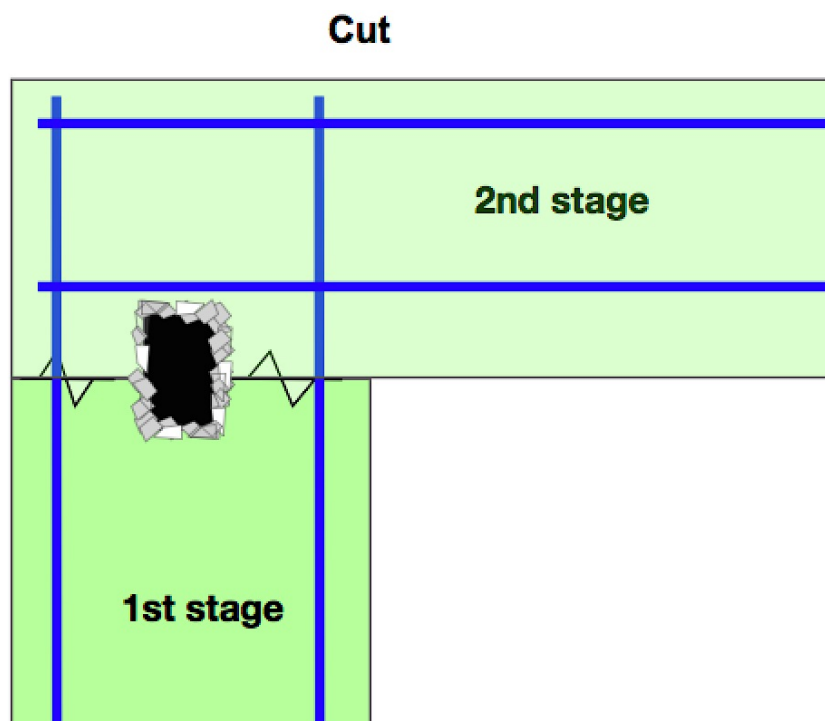
42

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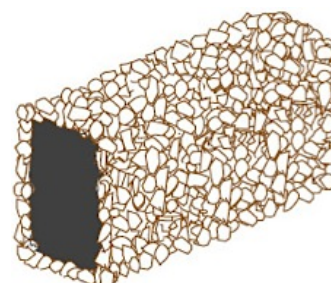
WALL / SLAB
WORK JOINT

Wall / Slab

With Waterstops type R4



Waterstops type R4



Waterstops for work- and construction joints.

Four sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

Placing of bands

BFL-Mastix waterstops type R4 are incorporated in the wall concrete.

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

20/40 R4
12 m'/Box

30/40 R4
9 m'/Box



Water level
- permanent
- intermittent

20/70 R4
6 m'/Box

30/40 R4
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R4
6 m'/Box

40/70 R4
6 m'/Box

40/100 R4
3.60 m'/Box

Tender text

Wall / Slab
With waterstops type R4

Supply and incorporating of BFL-Mastix waterstops type R4 in the concrete of the wall to **create a durable waterproofing** with the following slab. BFL-Mastix waterstops type R4 consist of a waterproof and soft core to **absorb movements**.

The core is coated with fine gravel size 4/8 mm to **assure adhesion** in fresh concrete.

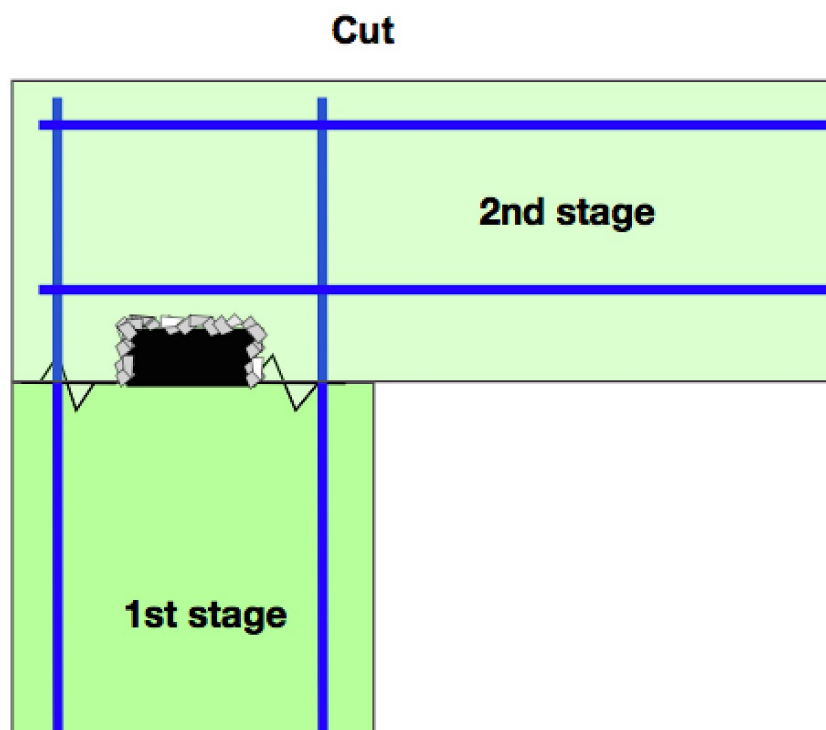
Profile (.....) * m'

* 20/40 R4 or 20/70 R4 or 30/40 R4 or 40/50 R4 or 40/70 R4 or 40/100 R4

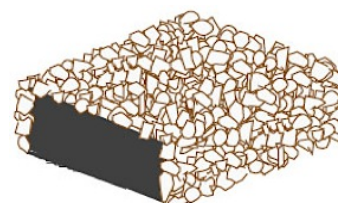
return

Wall / Slab

With Waterstops type R



Waterstops type R



Waterstops for work- and construction joints.

Three sides of the band-profile are gravel coated to assure adhesion with fresh concrete.

The gravel-free side is for gluing the band on hard concrete, metal or PVC.

Placing of bands

BFL-Mastix waterstops type R are glued with Mastix MS-Polymer on the existing concrete.

- 15/30 R : 1 cartridge for 10 m'
- 20/40 R : 1 cartridge for 6 m'
- 30/40 R : 1 cartridge for 6 m'
- 20/70 R : 1 cartridge for 3 m'
- 40/50 R : 1 cartridge for 4 m'
- 40/70 R : 1 cartridge for 3 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water
- rain
- spring

Profiles

15/30 R
21 m'/Box

20/40 R
12 m'/Box

30/40 R
9 m'/Box



Water level
- permanent
- intermittent

20/70 R
6 m'/Box

30/40 R
9 m'/Box



Basins
- swimming pool
- reservoir

40/50 R
6 m'/Box

40/70 R
6 m'/Box

Tender text

Wall / Slab
With waterstops type R

Supply and gluing of BFL-Mastix waterstops type R4 in the concrete of the wall to **create a durable waterproofing** with the following slab. BFL-Mastix waterstops type R are glued with Mastix MS-Polymer. BFL-Mastix waterstops type R consist of a waterproof and soft core to **absorb movements**.

The core is on three sides coated with fine gravel size 4/8 mm to **assure adhesion** on fresh concrete.

The non gravel coated side is for gluing the band.

Profile (.....) * m'

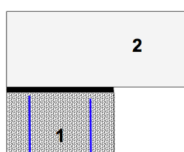
* 15/30 R or 20/40 R or 30/40 R or 20/70 R or 40/50 R or 40/70 R

return

Wall / Slab

One type of BFL-Mastix waterstops

for a durable watertightness joint between a wall and a precast slab.



With BFL-Mastix Waterstops type N

- Gluing on concrete 1

Page

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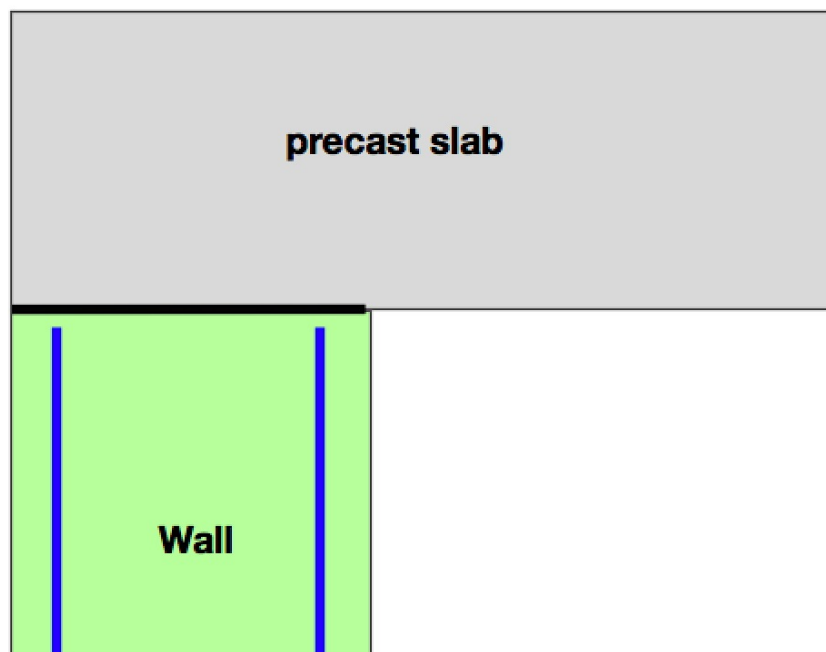
return

WALL / SLAB ASSEMBLING JOINT

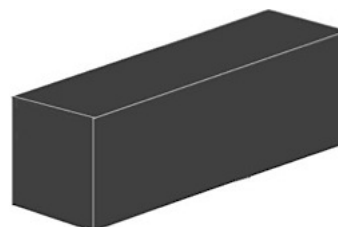
Wall / Slab

With Waterstops type N

Cut



Waterstops type N



Waterstops for assembling joints.
One or two sides of the core to
allow gluing on hard concrete,
metall or PVC.

Placing of bands

BFL-Mastix waterstops type N
are glued with Mastix MS-Polymer on
the existing concrete.

8/30 N : 1 cartridge for 10 m'
11/40 N : 1 cartridge for 6 m'
20/20 N : 1 cartridge for 10 m'
20/40 N : 1 cartridge for 6 m'

Choice of a BFL-Mastix band

Risk of water infiltration



Subsoil water

- rain
- spring

Profiles

8/30 N

51 m'/Box

11/40 N

42 m'/Box

20/20 N

46.20 m'/Box

20/40 N

24 m'/Box

Tender text

Wall / Slab
With waterstops type N

Supply and gluing of BFL-Mastix
waterstops type N on the top of a wall
before placing a precast slab element
to **create a durable waterproofing**.

BFL-Mastix waterstops type N
are glued with Mastix MS-Polymer.
BFL-Mastix waterstops type N consist
of a waterproof and soft core to
absorb movements.

Profile (.....) * m'

* 8/30 N or 11/40 N or 20/20 N
or 20/40 N

return

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- Placing of bands	66
- Glue Mastix MS-Polymer	71

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DOCUMENTATION

Joints in structures

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- Watertightness of joints	49
- Watertightness of concrete structures	50

return

JOINTS IN STRUCTURES

Joints

The treatment of the joints is very important in concrete structures.

The durability of a concrete structure is highly influenced by the joint conception.

Indeed, it is through the joints, where water can infiltrate the structure.

A smooth process of degradation can lead to the ruin of the structure.

Mastix Corp. presents solutions considering :

- the type of the joint
 - work joint
 - retreat joint
 - assembling
- the position of the joints
 - joints situated in the subsoil of the structure
 - assembling of precast elements
- movements appearing in the structure
 - retreat of concrete
 - earthquake effects
 - soil settlement

Mastix Corp. proposes a line of well adapted waterstops :

- soft and deformable waterstops, adapting to movements in the structure
- waterstops compatible with the fresh concrete, thanks to the fine gravel coating on the band-core
- with hard concrete compatible waterstops thanks to the glue Mastix MS-Polymer
- the waterstops do not suffer under the concrete alkalinity
- the waterstops support rain and snow

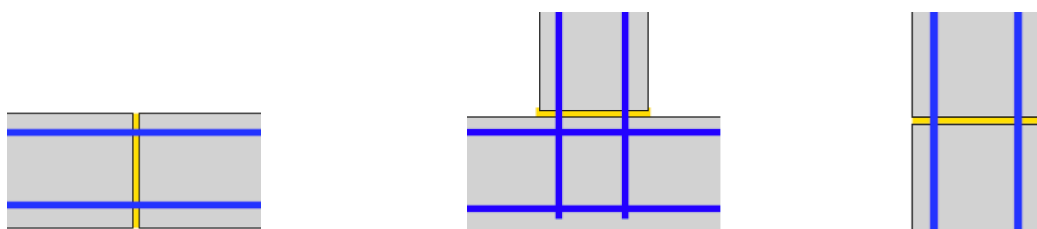
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Joints in concrete structures

Work- or construction joints

are the connection between two concreting stages.

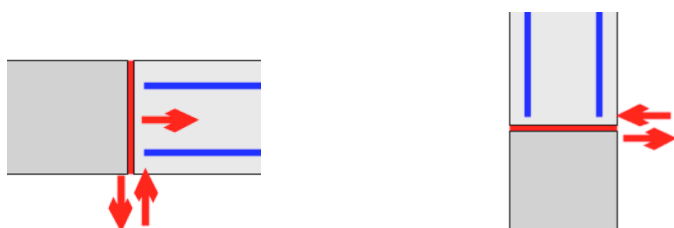
Waterstops BFL-Mastix R4 - R - RG - RB are used for waterproofing workjoints.



Retreat- or control joint

is between two concreting stages without connecting rebars also between a demolition surface and a new concrete.

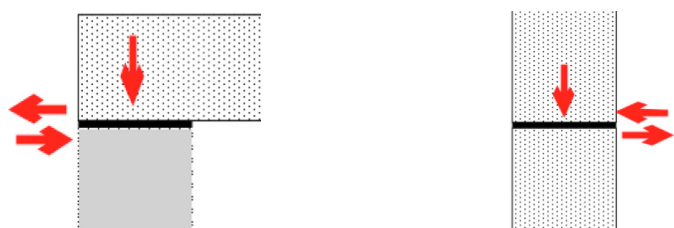
Waterstops BFL-Mastix R4 1/2 D - R4 1/2 - RGD dispose an elastic reserve, capable to absorb retreat movements or from settlements.



Assembling

are situated between a concreting stage and a precast element or between two precast elements.

The BFL-Mastix waterstops absorb compression and traction and shearing movements.



return

Watertightness of joints

BFL-Mastix waterstops and the concrete

form a combination assuring a proved watertightness in the joints.

The fine crushed gravel,

covering entirely or partly the core of the deformable BFL-Mastix waterstops, assures a perfect physical adhesion with the cement paste in the concrete.

Watertightness of joints

in concrete structures has for task to avoid watercirculation in the joints.

BFL-Mastix watertops

solve these requirements.

BFL-Mastix watertops

are a quality product for the durable* watertightness of joints in concrete structures.

* until the moment of demolition

BFL-Mastix watertops

are certified ISO 9001/2015.

return

Watertightness of concrete structures

Concrete

is a modern, solid and durable building material.

Concrete can be compared with artificial rockstone.

Concrete ingredients are mostly as old as our usual rockstones.

The most important qualities of concrete are pressure resistance and, with rebars also against shearforces.

Concrete has allowed to realize important structures in civil works, such as power dams, highways, bridges, basins, harbour structures and in the field of buildings, also skyscrapers and outstanding structures and imaginative creations by great architects.

Concrete sticks or connects itself

only with porous materials, able to absorb water, also in fresh concrete.

In case of fresh concrete connected to non absorbing materials, such as glass or steel, synthetics or plastic, a waterproofing of the interface is not possible.

The case of an existing and a new concrete requires, that the old concrete can absorb water out of the new concret, in order to adhere tightly to the old one.

The contact surface between a hard and a new concrete must be clean, rough and porous.

A concrete structure is generally complex,

made of many single elements, progressively connected every day.

Between the single concreting stages, it is to be avoided, that water can flow through cracks and joints.

Therefore, these joints must be treated together with the construction progress.

Render joints waterproof is often difficult, because important damage to the structure cannot be avoided, when inadequate waterproofing means are applied.

return

BFL-Mastix waterstops

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- type R	55
- type RG	56
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- Function of fine crushed gravel	63
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return

BFL-MASTIX WATERSTOPS

Presentation of BFL-Mastix waterstops



BFL-Mastix waterstops

are a special product for a durable watertightness of joints in concrete structures.

* The waterproofing of joints has for task to avoid any water circulation in the joints.



BFL-Mastix waterstops

consist of [a soft and deformable core, coated](#) partly or totally with a [special fine gravel](#) mechanically solidly anchored with the core.



BFL-Mastix waterstops

are compatible with soft concrete (fresh concrete) as well as with hard concrete.



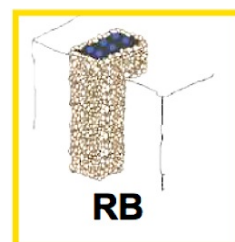
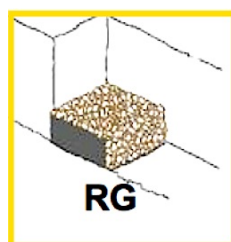
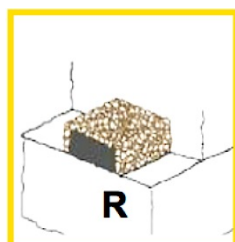
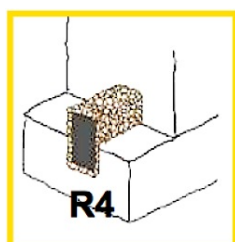
BFL-Mastix waterstops

fulfill all requirements for a durable watertightness of joints in concrete structures.

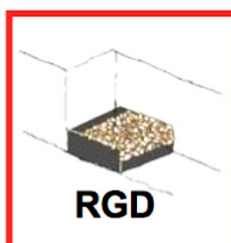
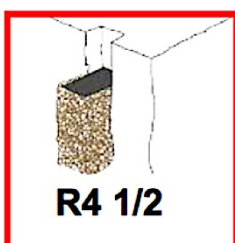
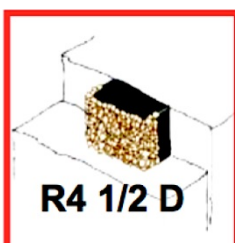
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Types of BFL-Mastix waterstops

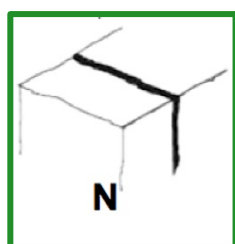
Kind of waterstops
for waterproofing work- or construction joints



Kind of waterstops
for waterproofing retreat- or control joints



Kind of waterstops
in joints between precast elements



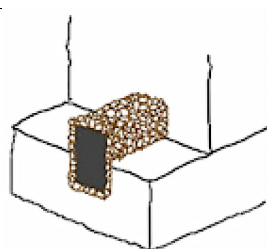
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Characteristics

of BFL-Mastix waterstops **type R4**

for waterproofing work- and construction joints

Work
joint



BFL-Mastix waterstops type R4
consist of :

- a rubber/bitumen core, deformable.
- special fine non alkali-reactive gravel, solidly anchored in the factory on all four sides of the core.

	Bands	Dimensions		Length	Conditioning	Weight
		cm	cm	cm	m'/box	kg/m'
		* a	* b			
	20/40 R4	3.00	5.00	60	12.00	2.40
	20/70 R4	3.00	8.00	60	6.00	4.00
	20/120 R4	13.00	3.00	60	4.20	5.50
	30/40 R4	4.00	5.00	60	9.00	3.50
	40/50 R4	5.00	6.00	60	6.00	5.00
	40/70 R4	5.00	8.00	60	6.00	5.50
	40/100 R4	5.00	11.00	60	3.60	7.00

* Because of the plasto-elastic behaviour of the core, the dimensions **a** and **b** can alter a bit.

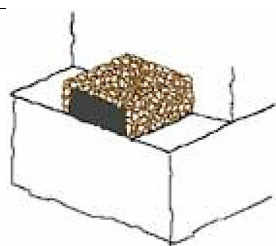
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Characteristics

of BFL-Mastix waterstops **type R**

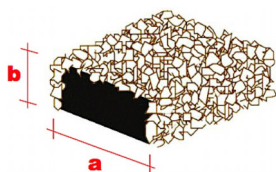
for waterproofing work- and construction joints

Work
joint



BFL-Mastix waterstops **type R**
consist of :

- a rubber/bitumen core, deformable.
- special fine non alkali-reactive gravel, solidly anchored in the factory on three sides of the core.



Bands	Dimensions		Length	Conditioning	Weight
	cm	cm	cm	m'/box	kg/m'
	* a	* b			
15/30 R	4.00	2.00	60	21.00	1.00
20/40 R	5.00	2.50	60	12.00	1.80
20/70 R	8.00	2.50	60	6.00	2.80
20/120 R	13.00	2.50	60	6.00	4.50
30/40 R	5.00	3.50	60	9.00	2.50
40/50 R	6.00	4.50	60	6.00	4.00
40/70 R	8.00	4.50	60	6.00	4.50
40/100 R	11.00	4.50	60	3.60	6.00

* Because of the plasto-elastic behaviour of the core, the dimensions **a** and **b** can alter a bit.

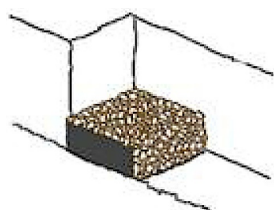
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Characteristics

of BFL-Mastix waterstops **type RG**

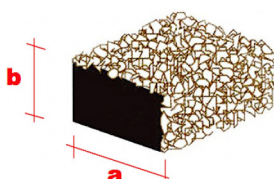
for waterproofing work- and construction joints

Work
joint



BFL-Mastix waterstops type RG
consist of :

- a rubber/bitumen core, deformable.
- special fine non alkali-reactive gravel, solidly anchored in the factory on two sides of the core.
- two core sides without gravel coating are for the gluing on the hard concrete.



Bands	Dimensions		Length	Conditioning	Weight
	cm	cm	cm	m'/box	kg/m'
	* a	* b			
20/20 RG	2.50	2.50	60	24.00	1.00
30/40 RG	4.50	3.50	60	9.00	1.80

* Because of the plasto-elastic behaviour of the core, the dimensions **a** and **b** can alter a bit.

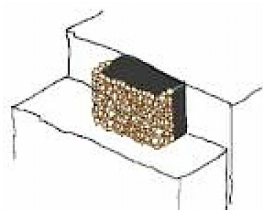
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Characteristics

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

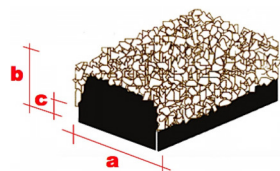
for waterproofing retreat- or control joints

Retreat
joint



BFL-Mastix waterstops **type R4 1/2 D** consist of :

- a rubber/bitumen core, deformable.
- special fine non alkali-reactive gravel, solidly anchored in the factory on half the perimeter of the core.
- one gravel-free side is for the gluing.
- a deformable reserve is for absorbing retreat or settlement movements.



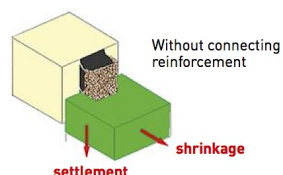
Bands	Dimensions			Length	Conditioning	Weight
	cm	cm	cm	cm	m'/box	kg/m'
	* a	* b	* c			
30/40 R4 1/2 D	4.00	3.50	1.00	60	12.00	2.00
40/50 R4 1/2 D	5.00	4.50	2.00	60	6.00	3.00
40/70 R4 1/2 D	7.00	4.50	2.00	60	6.00	4.20

* Because of the plasto-elastic behaviour of the core, the dimensions **a**, **b** and **c** can alter a bit.

The deformable reserve

is a certain core volume, that can deform itself under arising movements.

In the presence of pressure water, it is necessary to confine the deformable reserve, to avoid a material loss under creeping stress (Special waperstops).



Profiles	Shrinkage	Settlement
	mm	mm
30/40 R4 1/2 D	2.00	4.00
40/50 R4 1/2 D	3.00	6.00
40/70 R4 1/2 D	3.00	6.00

return

Characteristics

of BFL-Mastix waterstops **type RGD**

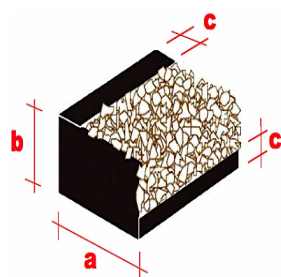
for waterproofing retreat- or control joints

Retreat
joint



BFL-Mastix waterstops type RGD
consist of :

- a rubber/bitumen core, deformable.
- special fine non alkali-reactive gravel, solidly anchored in the factory on three quarts of two adjacent sides of the core.
- two adjacent sides are for the gluing on the hard concrete.
- a deformable reserve on adjacent sides with gravel coating for absorbing retreat or settlement movements.



Bands	Dimensions			Length	Conditioning	Weight
	cm	cm	cm	cm	m'/box	kg/m'
	* a	* b	* c			
40/50 RGD	5.00	4.00	1.00	60	6.00	3.00

* Because of the plasto-elastic behaviour of the core, the dimensions **a**, **b** and **c** can alter a bit.

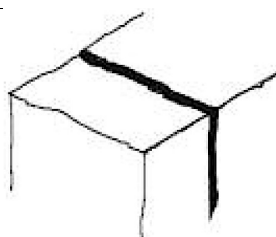
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Characteristics

of BFL-Mastix waterstops **type N**

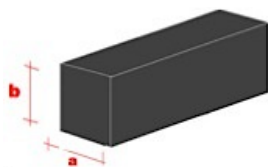
for waterproofing assembling joints

Assembling joint



BFL-Mastix waterstops **type N** consist of :

- a soft core, deformable, rubber/bitumen.



Bands	Dimensions		Length	Conditioning	Weight
	cm	cm	cm	m'/box	kg/m'
	* a	* b			
8/30 N	0.80	3.00	60	51.00	0.40
11/40 N	1.10	4.00	60	42.00	0.60
20/20 N	2.00	2.00	60	46.20	0.50
20/40 N	2.00	4.00	60	24.00	1.00
30/30 N	3.00	3.00	60	21.00	1.00

* Because of the plasto-elastic behaviour of the core, the dimensions **a** and **b** can alter a bit.

return

Function of the core

Absorption

of movements in the structure without fissuring.

- **Movements**

in the concrete structure cause fissures and rupture of non-deformable materials, dangerous for the watertightness of the joint.

- **Movements**

are mostly the cause of soil settlement, traffic vibration or seismic influence.

It is thanks to their plasto-elastic composition

that the BFL-Mastix waterstops can absorb movements in the concrete structure.



deformability test

return

Characteristics of the core

Material

The core consists of a mixture rubber/bitumen and additives.

The core consistency is plasto-elastic.

The core is produced in various quadrangular shapes.

The core density is between 1.25 and 1.30 g/cm³

Waterproofness

Waterproofness of the BFL-Mastix waterstop core is total.

Water column		Hydrostatic pressure				Waterproofing
m'	ft	kg/cm2	bar	KPa	psi	
2	6.56	0.2	0.2	19.6	2.84	total
10	32.81	1.0	1.0	98.00	14.20	total
50	164.04	5.0	5.0	490.00	71.12	total
100	328.08	10.0	10.0	980.00	142.25	total

Resistance against chemical aggressions

The core presents an excellent resistance against :

- water charged with deicing salts
- purine
- sulphated water
- chloric water
- ammonium sulphate 10 g/l
- ammonium chloride 10 g/l
- caustic soda
- ammonia 25%
- pure sulphuric acid
- pur olein acid
- ethylic alcohol
- hydrocarbon in static estate

Concrete alkalinity

The core of BFL-Mastix waterstops is insensitive to the concrete alkalinity.

Deformation capacity

The deformation properties of the core of BFL-Mastix waterstops allow them to adapt themselves to all movements occuring generally in concrete structure.



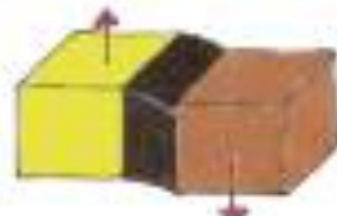
1 Core in relax position



2 Core under tension stress



3 Core under compression stress



4 Core under shear stress

return

Function of fine crushed gravel

Anchor

The BFL-Mastix waterstops are tightly and durably with the concrete connected.

- **The fine crushed gravel**

covering the core of the BFL-Mastix waterstops is of the same kind as the concrete gravel.

Therefore this coating is fully compatible with the concrete.

- **The fine crushed gravel**

covering the core of the BFL-Mastix waterstops is clean, rough and porous.

Indeed only the three essential conditions assure the liaison with the fresh concrete.

The liaison of the fine gravel, coating the core and the concrete is durably watertight.



return

Characteristics of fine crushed gravel

The fine crushed gravel mechanically pressed on the band cores is of :

- broken limestone
- size 4/8 mm
- rough material for best adhesion with the cement paste
- porous surface for easy penetration by the cement paste to reinforce the waterproofing with the BFL-Mastix system
- alkali-non reactive

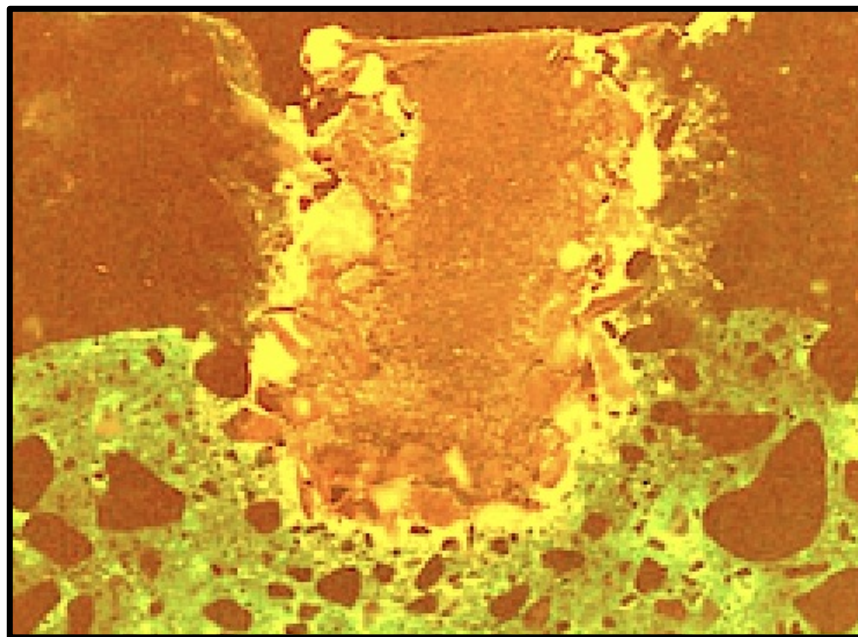
Capillarity test

No capillar rising water

has been observed (green color), neither in the interfaces concrete/gravel and core/fine gravel.

A bad adhesion of the fine gravel on the core **could not be remarked**.

A bad adhesion of the gravel coating on the core with the concrete **was not observed**.



return

Guarantees

The BFL-Mastix compagny offers guarantees to concrete constructors, wich are based on longterm observations of the watertightness in constructions during more than 20 years.

BFL-Mastix waterstops maintain all their preoperties, as long as the adjacent concrete exists.

Only when this concrete is demolished, the BFL-Mastix waterstops separate from the concrete.

To assure the watertightness with BFL-Mastix waterstops, the quality of the carrying out job has to be proved, thus obtaining the real longterm watertighness.

Never intermingle the watertightness of a concrete with the watertightness of a concrete structure.

The watertightness of a concrete structure depends entirely on the watertightness of the joints.

The alkalinity of the concrete does not lead to any property alteration of the BFL-Mastix waterstops, but contributes to their longterm guarantee.

Chosing BFL-Mastix waterstops influences the practical sense, more than referring to the properties, wich are finally based on long-year guarantees.

We assume responsibility up to the value of our delivered material.
Site of jurisdiction : CH-1000 Lausanne, Switzerland

return

Placing of waterstops

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- Gluing of BFL-Mastix waterstops	68
- Connection between BFL-Mastix waterstops	69
- Vertical gluing of BFL-Mastix waterstops	70

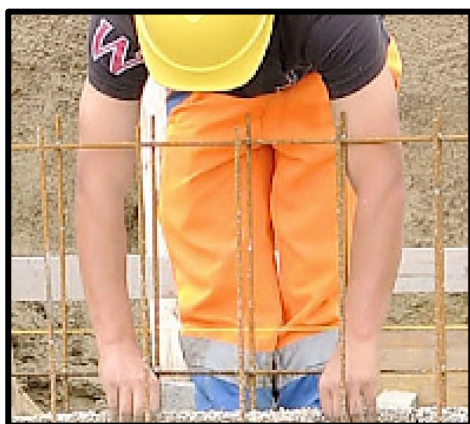
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PLACING OF WATERSTOPS

Placing of BFL-Mastix waterstops type R4

[Connection between BFL-Mastix waterstops](#)

- 1** BFL-Mastix waterstops type R4 are incorporated in fresh concrete. Half of their height is in the concrete and half above, in a waiting position.



- 2** Connecting waterstops ends is done by heating them for some seconds with a small propane gas burner or with the glue Mastix MS-Polymer.



return

Gluings of BFL-Mastix waterstops

on hard, dry or humide concrete, on PVC membranes or bitume

[Connection between BFL-Mastix waterstops](#)

[Vertical gluing of BFL-Mastix waterstops](#)

[The glue Mastix MS-Polymer](#)

- 1 The glue Mastix MS-Polymer is to be applied in thin layers on the corresponding surfaces.

A pressure is to be applied on the glued bands until the glue is laterally appearing.



- 2 Band connections are made with the glue Mastix MS-Polymer, but without debording on the gravel cover.



- 3 To control the adherence, it just needs trying to pull off the band.

return

Connection between BFL-Mastix waterstops

- 1** The BFL-Mastix waterstops are connected black on black.
- 2** With a slightly heated metallic spatula, just scratch off the gravel on the gluing surface.
- 3** For connecting bands, the glue can be used or a small gas burner.
In both cases the glue should not cover the fine gravel.



return

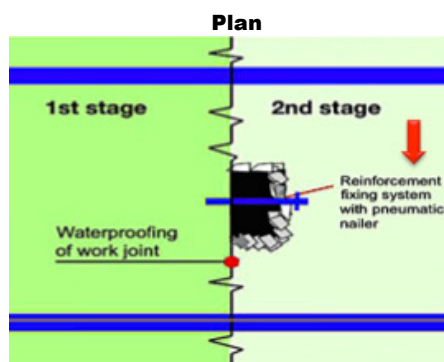
Vertical gluing of BFL-Mastix waterstops

Nailing – Reinforcement the glued waterstops

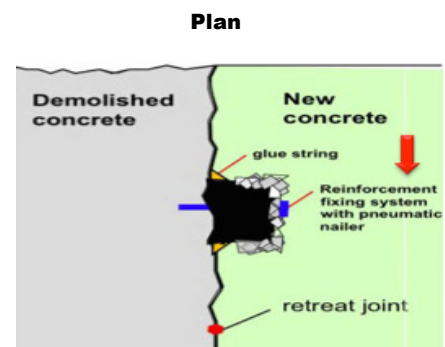
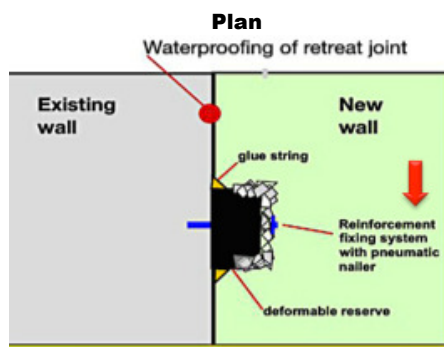
In order to reinforce the glued waterstops, a pneumatic nailer can be used during the glue hardening period.

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

Waterstops type R



Waterstops type R4 1/2 D



return

Glue Mastix MS-Polymer

Page

- Glue Mastix MS-Polymer

72 - 73

GLUE MASTIX MS-POLYMER

return

Glue Mastix MS-Polymer

Presentation

- The black glue Mastix MS-Polymer is delivered in 310 ml. cartridges. The glue is applied with the usual pistol.
- The glue Mastix MS-Polymer assures a perfect liaison of BFL-Mastix waterstops with concrete, steel and PVC.



Using

- The glue Mastix MS-Polymer is applied in a thin layer on the gravel-free side of the BFL-Mastix waterstops.
- The bands are placed on the clean, dry or humid gluing surface by pressing the bands on this surface until a slight quantity of glue is laterally squeezed out.
- Connecting bands is done with the glue Mastix MS-Polymer, but avoiding to spread it over the gravel coating.
- After polymerization (hardening) of the glue, an adherence test should be made by trying to rip off the band.
- Before gluing the waterstops on PVC or steel, a careful cleaning of fat layers by brushing, flaming or industrial cleaners must be carried out.

Adherence

- The glue Mastix MS-Polymer assures an excellent adhesion on hard, clean, humid or freshly stripped concrete.
The elasticity of Mastix MS-Polymer avoids the rupture of the gluing interface during the unavoidable movements in concrete structures.

Resistance

- Mastix MS-Polymer presents an excellent resistance against weather, high stability against UV, good resistance against light, heat and aging.
The usual working range with Mastix MS-Polymer is between -40°C and +90°C.

Connection

- Mastix MS-Polymer assures an excellent liaison with :
 - dry and clean concrete
 - freshly stripped concrete : clean and moist
 - humid concrete
 - steel
 - thermo-plastic materials (except PE – PP – PTFE)

Hardening

- Mastix MS-Polymer dries under influence of ambient air humidity. The hardening starts on the surface and continues towards inside. At a temperature of +23°C and a relative air humidity of about 50%, the hardening progress is about 2 to 4 mm per day.
High temperature and humidity of the air accelerate the hardening, whilst low temperature and low humidity slow down the hardening.

Storing

- Storing of Mastix MS-Polymer cartridges should be in fresh and dry spaces.
Storing temperature should be between +10°C and +23°C.
Protect the cartridges against cold, heat and strong sunshine.

Security

- Handling and placing BFL-Mastix waterstops is without danger for the workmen's health.
During the gluing procedure, it is recommended to use gloves and protection spectacles.

return



Catalog 2021

with durable solutions for waterproofing construction joints with
BFL-Mastix waterstops

The company is ISO 9001/2015 certified

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