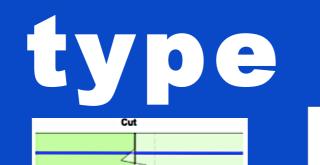


## waterproofing joints in concrete structures

### Secure solutions with BFL-Mastix waterstops for waterproofing work-and construction joints

# Raft /Raft

### with waterstops

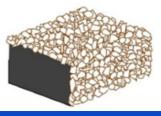


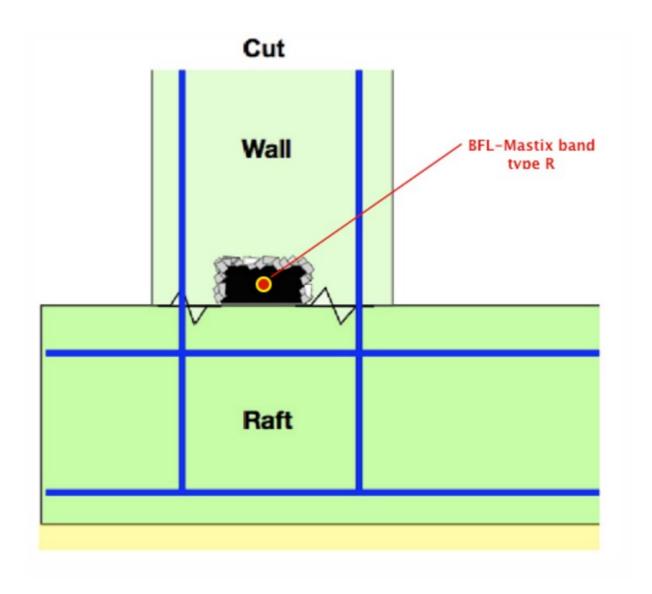
2nd stage

1st stage



Waterstops type RG





The BFL-Mastix waterstops consist of a soft and deformable core, covered with a limestons 4/8 mm gravel, connecting afterwards with the cement in the concrete..

The BFL-Mastix waterstops are the very best solution to assure waterproof joints.

# Choice of a BFL-Mastix band type RG

Choice of a BFL-Mastix band					
Risk of water infiltration	Profiles				
	Subsoil water - rain - spring	<b>20/20 RG</b> 24 m'/Box			
	Water level - permanent - intermittent	30/40 RG			
	Basins - swimming pool - reservoir	9 m'/Box			

### **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 ..... m' .....

### Gluing of BFL-Mastix bands

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.





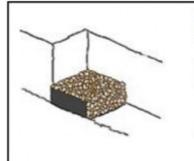
**2** Band connections are made with the glue Mastix MS-Polymer, but without debording on the gravel cover.





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

### Characteristics of bands type RG



### 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	Dime	nsions	Length	Conditioning	Weight
- Alam		cm	cm	cm	m'/box	kg/m'
b		* a	*b			
	20/20 RG	2.50	2.50	60	24.00	1.00
8	30/40 RG	4.50	3.50	60	9.00	1.80
				plasto-elast nd b can alt	ic behaviour of the ter a bit.	core, the

### 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

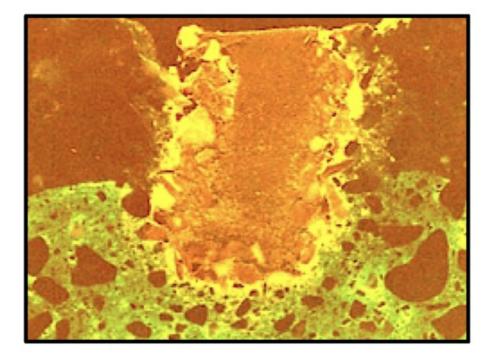
#### **Capillarity test**

#### 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.



### **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 perfetct 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 :
  - o dry and clean concrete
  - o freshly stripped concrete : clean and moist
  - humid concrete
  - o 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.

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